



'Evolution' Rebuttals

CREATION VS. EVOLUTION

A shattering critique of the PBS/NOVA television series 'Evolution'
By *Answers in Genesis*



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Episode 1: Darwin's Dangerous Idea

by Jonathan Sarfati

The two-hour premier episode of the PBS/Nova series Evolution tries to set the tone for this propaganda effort. Much of it involves a dramatization of the life of Charles Darwin (1809—1882), interspersed with alleged evidence for evolution and against creation. Of course, the producers provide no space to scientific criticisms, giving the impression that there is only ‘religious’ criticism of evolution. They also ignore the rabidly atheistic faith of many of evolution’s proponents, including many of those involved in the series, e.g. Daniel Dennett, Stephen Jay Gould, Edward O. Wilson and Eugenie Scott (see also [A Who’s Who of evolutionists](#)). To try to deflect the charge that the series is anti-Christian they try to pretend that evolution and ‘religion’ are compatible, with the aid of compromising churchians who deliberately overlook many key points of conflict.

To avoid the impression that this was one-sided propaganda, they claim that the Discovery Institute, part of the Intelligent Design Movement, was invited for ‘balance’. But the Discovery Institute pointed out that they declined because they would have been slotted in to the ‘religious’ objections sections whereas their objections to evolution are purely scientific. *Answers in Genesis* also features on Episode 7: ‘What about God?’ but again the scientific objections were not shown.

Episode 1 opens with a drama of Darwin and starts with Darwin’s voyage on HMS *Beagle*. Darwin introduces himself and Captain FitzRoy in broken Spanish to villagers in South America. They lead him to the skull of an extinct ground sloth, and this conversation occurs:

Darwin: I wonder why these creatures no longer exist.

FitzRoy: Perhaps the Ark was too small to allow them entry and they perished in the Flood.

D: [laughs]

F: What is there to laugh at?

D: Nothing, nothing.

F: Do you mock me or the Bible?

D: Neither.

F: What sort of clergyman will you be, Mr Darwin?

D: Dreadful, dreadful.

Then the drama moves to a scene on the *Beagle*, where Capt. FitzRoy was reading from Genesis 1, and Darwin was below deck rolling his eyes.

There we have it—the alleged struggle between science and ‘fundamentalist’ religion. Of course, the representative of ‘fundamentalism’, Captain FitzRoy, is made to spout a silly straw man argument. Nowhere in the series is there any hint that there could be any scientific objections to evolution.

But ‘FitzRoy’s’ argument is unbiblical—the Bible clearly states that two of *every* kind of land

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vertebrate animal was on the Ark, and the Ark had plenty of room for all the required animals—see http://www.AnswersInGenesis.org/home/area/Magazines/docs/cen_v19n2_animals_ark.asp

But then—not that we should be surprised—these supposed incidents go well beyond artistic license, and actually falsify history. Darwin's anti-Christianity hadn't fully developed by the time of the *Beagle* voyage, and he even attended church services, while FitzRoy likely didn't believe in a global Flood during that voyage.

Another likely fiction is the famous 'grandfather' quip in the Huxley–Wilberforce debate, although the program showed this as Huxley's recollection when talking with Darwin—See Addendum (page 13): Did Wilberforce really say it?

DARWINISM'S PHILOSOPHICAL IMPLICATIONS

Daniel Dennett, the author of *Darwin's Dangerous Idea* (which presumably inspired the title of this episode), said that Darwin should be ranked ahead of Newton and Einstein, because he united the disparate world of purposelessness and meaninglessness with the world of purpose and meaning. They omitted Dennett's famous statement that Darwinism was 'universal acid', eating through every traditional idea, especially 'meaning coming from on high and being ordained from the top down.' Presumably that would have alerted the intended Christian audience too soon.

Stephen Jay Gould said that Darwinism answers who we are, as far as science can answer that. A biologist Schneider said that it 'stirs the soul'. The series ends with Moore's conclusion, 'Darwin's vision of nature was, I believe, fundamentally a religious vision.' In the light of this, it's amazing that the series still persists in claiming that evolution is 'science' rather than 'religion'.

IS DARWINISM ANTI-CHRISTIAN?

Annie's death and the problem of evil

The episode dramatizes the sickness and death of Darwin's beloved daughter Annie. Darwin's biographer James Moore says that this destroyed the truth of Christianity in his mind. How could there be a good God if He allowed this to happen? Instead, Annie was an unfortunate victim of the laws of nature, i.e. she lost the struggle for existence.

The Bible says that God created everything 'very good' (Genesis 1:31), while death is an intruder, called 'the last enemy' (1 Corinthians 15:26). Death and suffering are the result of Adam's sin (Genesis 2:17, 3:19, Romans 5:12–19, 8:20–22, 1 Cor. 15:21–22). This entails that the fossil record, a record of death, disease and suffering, must date *after* Adam's sin.

Alas, the prevailing churchian views were 'long age', which place fossils millions of years *before* Adam. This entails that death and suffering were both around for millions of years before Adam, and were called 'very good'. Such a view evidently didn't appeal to Darwin. It's sad that many churchians today promote theistic evolution and progressive creation, which have this insuperable problem of death before sin, and even claim that they are more acceptable to unbelievers than the literal Genesis view held by AiG. They fail to realize that this battle was already lost in Darwin's day.

Darwin also claimed that Christianity is a 'damnable doctrine' because his unbelieving father would be condemned to Hell, but of course the PBS episode doesn't mention this! They do, however, show Darwin's older brother Erasmus (named after their evolutionary grandfather) mocking hymn singing in church.

KENNETH MILLER, ROMAN CATHOLIC EVOLUTIONIST

Darwin's obvious anti-Christianity doesn't stop Kenneth Miller claiming to be 'an orthodox Catholic



and an orthodox Darwinist'. He wrote a book, *Finding Darwin's God* (2000), an anti-creationist polemic, to try to reconcile God and evolution. Miller has had a long history of joining forces with leading humanists against Creation, and his book is full of straw-man arguments, misinformation and outright deception.¹ The last sentences in his book are revealing: 'What kind of God do I believe in? ... I believe in Darwin's God.' Since Darwin was anti-Christian as shown above, this is not the God any Christian can believe in. But the episode shows Miller attending Mass and taking communion, hoping that this show of outward religiosity will convince people who prefer outward appearances to inward convictions (cf. Matthew 23:25–28). Hopefully Bible-believing Christians will also realize that the Mass/transubstantiation contradicts the clear teaching that Christ was sacrificed once for all (Hebrews 9:26–28, 10:12–14).

STEPHEN JAY GOULD AND NOMA

Despite Darwin's obvious anti-Christian attitudes, Gould claimed on this program that Darwin didn't intend to disparage ideas of God. This is consistent with Gould's widely publicized claims that religion and science are 'non-overlapping magisteria' (NOMA).² That is, science deals with facts of the real world, while religion deals with ethics, values, morals, and what it means to be human.

However, this is based on the philosophically fallacious fact-value distinction, and is really an anti-Christian claim. For example, the Resurrection of Christ is an essential part of the Christian faith (1 Corinthians 15:12–19), but it is also a matter of history; it passed the 'testable' claim that the tomb would be empty on the third day, and impinges on science because it demonstrated the power of God over so-called 'natural laws' that dead bodies decay, they do not return to life. Christians should be made aware that this is not only a theoretical argument about the anti-Christian nature of NOMA—Gould actually dismisses John's historical narrative of Jesus' post-Resurrection appearance to doubting Thomas as a 'moral tale'.³

This NOMA distinction really teaches that religion is just in one's head, which seems to dull the senses of many Christians more than an overt declaration that Christianity is false. So this is even more dangerous.

Christians should not fall for this. Christ is the Lord of the universe, and the Bible is accurate on everything it touches, not just faith and morality, but history, science and geography also. So Christians should not give up any part of the 'real world' to those with a materialistic agenda. Especially when atheists are happy to let their own faith influence their science, by promoting evolution.

Gould's real sentiments are shown by his 1990 lecture at Victoria University of Wellington, New Zealand, which I attended. The whole theme of his lecture was that Darwin deliberately tried to counter the argument from design, and Gould speculated that this was because FitzRoy had browbeaten him with this argument. Gould also pointed out that some people reconcile religion and purpose with the mistaken idea that evolution is 'progress'. Gould slammed this idea, saying that evolution was just a blind, purposeless struggle for existence. For an accurate account of Gould's lecture, see [Darwin's real message: have you missed it?](#) It seems that Gould claims that science and 'God' are compatible only when trying to pacify concerned Christians, but at other times he makes it clear that there's no room for God, at least in the 'real world'.

None other than Kenneth Miller, who was impressed by Gould's NOMA idea, when he saw documentation of Gould's true feelings about belief in God, conceded that creationists had a point when they accused Gould of double talk:

Some wonder if Gould, in his heart, really believes these words. Late in 1997, Phillip Johnson described Gould's essay as 'a tissue of half-truths aimed at putting the religious people to sleep, or luring them into a "dialogue" on terms set by the materialists'. Had Johnson seen Gould on



television a year later, his sense of Gould's duplicity might have been dramatically confirmed.

INTERVIEWER: Gould disputes the religious claim that man is at the center of the universe. The idea of a science-religious dialogue, he says, is 'sweet' but unhelpful.

[Speaking to Gould]: Why is it sweet?

GOULD: Because it gives comfort to many people. I think that notion that we are all in the bosom of Abraham or are in God's embracing love is—look, it's a tough life and if you can delude yourself into thinking that there's all some warm and fuzzy meaning to it all, it's enormously comforting. But I do think it's just a story we tell ourselves.

Hard to see how something Gould regards as 'just a story we tell ourselves' could also be an obligatory step in 'the attainment of wisdom' (Finding Darwin's God, p. 170).

DARWIN, LYELL AND BILLIONS OF YEARS

Not mentioned in the PBS episode is the great influence on Darwin by one book he took on the *Beagle* voyage, but it explains a number of 'Darwin's' statements in the dramatization. This was *Principles of Geology* by Charles Lyell. This book pushed the idea of slow and gradual geological processes occurring over millions of years, and denied Noah's Flood. Gould wrote:

*'Charles Lyell was a lawyer by profession, and his book is one of the most brilliant briefs published by an advocate. ... Lyell relied upon true bits of cunning to establish his uniformitarian views as the only true geology. First, he set up a straw man to demolish. In fact, the catastrophists were much more empirically minded than Lyell. The geologic record does seem to require catastrophes: rocks are fractured and contorted; whole faunas are wiped out. To circumvent this literal appearance, Lyell imposed his imagination upon the evidence. The geologic record, he argued, is extremely imperfect and we must interpolate into it what we can reasonably infer but cannot see. The catastrophists were the hard-nosed empiricists of their day, not the blinded theological apologists.'*⁴

One example is Lyell's ignoring eyewitness accounts of the rate of erosion of the Niagara Falls, and publishing a different figure to suit his purpose.

But Lyell convinced Darwin, and in the program, he explicitly linked slow and gradual geological processes with slow and gradual biological processes. For example, he said that mountains were products of thousands of small rises, and 'Time, unimaginable tracts of time, is the key.' So just as small changes over ages can throw up mountains, why couldn't small changes accumulate over ages in animals to produce new structures?

Not only Darwin, but also the prevailing churchian views had capitulated to Lyell's ideas. So 'FitzRoy' expressed the prominent view that God created organisms in their present locations. Darwin wondered why God would create not-quite-identical finches in almost identical islands. It's notable that Darwin often used pseudo-theological arguments *against* design rather than direct arguments *for* evolution. This presupposes the 'two-model approach', i.e. that creation and evolution are the only alternatives. However, many evolutionists scream loudly if creationists say that, and if they use the same logic as Darwin, i.e. evidence against evolution is support for creation!

In this case, Darwin rightly thought that the island animals were descended from mainland ones. But this is what Biblical creationists would believe too, with a global Flood and subsequent migration from Ararat *via* continents to islands. So Darwin's arguments only work against a compromised creationist view, not the Biblical view. Present-day 'progressive creationists' hold essentially the same view as Darwin's opponents, so they are trying to fight a battle that was lost 150 years ago, but wouldn't have been if Christians had not compromised on the age of the Earth and the global Flood.

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This also backs up what *AiG* emphasizes: that facts do *not* speak for themselves, but are always *interpreted* within a framework. We don't deny a single observation an evolutionist makes, but find that they always make better sense when interpreted within the Biblical framework, as opposed to a compromised one. Therefore it shouldn't be surprising that many of the alleged 'evidences' for evolution adduced by the PBS series actually turn out to support the Biblical model.

WHAT IS EVOLUTION?

It is vitally important that words should be used accurately and consistently. The theory that the PBS series is really promoting, and which creationists oppose, is the idea that particles turned into people over time, without any need for an intelligent designer. The evolutionist Kerkut defined this 'General Theory of Evolution' (GTE) as 'the theory that all the living forms in the world have arisen from a single source which itself came from an inorganic form.' He continued: 'the evidence which supports this is not sufficiently strong to allow us to consider it as anything more than a working hypothesis.'⁵

However, many evolutionary propagandists are guilty of the deceitful practice of *equivocation*, that is, switching the meaning of a single word (evolution) part-way through an argument. A common tactic, 'bait-and-switch', is simply to produce examples of change over time, call this 'evolution', then imply that the GTE is thereby proven or even essential, and Creation disproved. The PBS series is full of this, as shown below.

THE INFORMATION PROBLEM

The main scientific objection to the GTE is *not* that changes occur through time, and neither is it about the *size* of the change (so we would discourage use of the terms micro- and macro-evolution). The key issue is the *type* of change required—to change microbes into men requires changes that *increase the genetic information content*. The three billion DNA 'letters' stored in each human cell nucleus convey a great deal more information (specified complexity) than the over half a million DNA 'letters' of the 'simplest' self-reproducing organism. The DNA sequences in a 'higher' organism such as a human being, or a horse, for instance, code for structures and functions unknown in the sort of 'primitive first cell' from which all other organisms are said to have evolved. As will be shown, none of the alleged proofs of 'evolution in action' adduced in this series provide a *single* example of functional new information being added. Rather, they all involve sorting and loss of information. To claim that mere change proves that information-increasing change can occur is like saying that because a merchant can sell goods, he can sell them for a profit. The origin of information is a major problem for the GTE—see the articles [Beetle Bloopers](#), [How would you answer?](#), and [Information: A modern scientific design argument](#).

WHAT IS THE BIBLICAL CREATIONIST MODEL?

Many of these bait-and-switch arguments imply that creationists believe in 'fixity of species'. The glossary listed on the *Online Course for Teachers: Teaching Evolution* is explicit; 'In Creationism, species are described as "fixed" in the sense that they are believed not to change their form, or appearance, through time.' But *AiG* does not deny speciation—in fact, it is an important part of creationist biology. Creationists, starting from the Bible, believe that God created different *kinds* of organisms, which reproduced 'after their kinds' (Gen. 1:11, 12, 21, 24, 25). Thus the Biblical kinds would have *originally* been distinct biological species, i.e. a population of organisms that can interbreed to produce fertile offspring, but that cannot so breed with a different biological species.

Creationists point out that the kind is larger than one of *today's* 'species'. This is because each of the original kinds was created with a vast amount of information. There was enough variety in the information in the original creatures so their descendants could adapt to a wide variety of environments.



Based on the Biblical criterion for kinds, creationists deduce that as long as two creatures can hybridize with true fertilization, the two creatures are (i.e. descended from) the same kind.⁶ Also, if two creatures can hybridize with the same third creature, they are all members of the same kind.⁷ The hybridization criterion is a valid *operational definition*, which could *in principle* enable researchers to list all the kinds. The implication is one-way—hybridization is evidence that they *are* the same kind, but it does *not* necessarily follow that if hybridization *cannot* occur then they are *not* members of the same kind (failure to hybridize could be due to degenerative mutations). After all, there are couples who can't have children, and we don't classify them as a different species, let alone a different kind.

The boundaries of the ‘kind’ do not always correspond to any given man-made classification such as ‘species’, genus, family, etc. This is not the fault of the term ‘kind’. It is actually due to inconsistencies in the man-made classification system, not the term ‘kind’. That is, several organisms classified as different ‘species’, and even different genera or higher groupings, can produce fertile offspring. This means that they are really the same species that has several varieties, hence a *polytypic* (many types) species. A number of examples are presented in the article [Ligers and wholphins? What next?](#), including Kekaimalu the wholphin, a fertile hybrid of two different so-called *genera*.

Loss of information through mutations (copying mistakes), e.g. in proteins recognizing ‘imprinting’ marks, ‘jumping genes’, natural selection, and genetic drift, can sometimes result in different small populations losing such different information that the offspring from crossing different varieties (hybrids) may be sterile, or not survive. Or changes in song or color might result in birds no longer recognizing a mate, so they no longer interbreed. Either way, a new ‘species’ is formed. Thus each created kind may have been the ancestor of several present-day species.

But again, it’s important to stress that speciation has nothing to do with *real* evolution (GTE), because it involves *sorting* and *loss* of genetic information, rather than originating *new* information.

The Biblical Creation/Fall/Flood/Migration model would also predict *rapid* formation of new varieties and even species. This is because the different varieties of land vertebrates have descended from comparatively few kinds of animals that disembarked from the Ark about 4500 years ago. Conversely, Darwin thought that this process would normally take eons. It turns out that the Biblical model has been supported by the very evidence claimed by evolutionists to support their theory, as mentioned before. One example is a new species of mosquitoes, i.e. one that can’t interbreed with the parent population, arising in the London Underground train system (the ‘Tube’) in only 100 years. The rapid change ‘astonished’ evolutionists, but should delight creationists—see [Brisk Biters](#).

EVOLUTION IN ACTION?

Galápagos finches

This episode makes much of these birds, but admits that Darwin didn’t even realize that they were finches, and failed to label which island they came from. All the same, he managed to acquire this information, and as previously mentioned, he thought that they had descended from mainland finches with modification, just as the Biblical Creation/Fall/Flood/Migration model would predict! He correctly realized that finch beak size was the result of adaptation to different food sources.

The problem is that he and the PBS series taught that this adaptation could explain the GTE. But the finch beak variation is merely the result of selection of *existing* genetic information, while the GTE requires *new* information. Also, an 18-year study by zoologist Peter Grant showed that a new species could arise in only 200 years,⁸ which is inadvertent support for the Biblical model of rapid speciation—see [Darwin’s Finches: Evidence supporting rapid post-Flood adaptation](#). Another problem with using these finches is that the variation seems to be cyclic—when a drought resulted in a slight increase in beak size, the change was reversed when the rains returned. So it looks more like *built-in* adaptability to various climatic conditions than anything to do with the GTE.

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This episode also discusses the change in beak length of hummingbirds, to adapt to changes in the lengths of flowers where they obtain nectar. But the same points apply—no evidence was produced that any new information is required for these changes, as opposed to selection of already-existing information.

HIV RESISTANCE TO DRUGS

This episode claims that Darwin didn't really see evolution in action, but now we do. Supposedly the HIV, the cause of AIDS, evolves resistance to drugs faster than we can make them. Because the virus can produce billions of copies of itself per day, it can 'evolve' in minutes to hours. One researcher said that this rapid change would be a 'surprise' if we didn't have the concept of evolution. There were also attempts to tug heartstrings, by portraying AIDS patients as 'victims of evolution'.

First, we see the equivocation—HIV producing HIV is supposed to show that particles could turn into people; but they're still HIV—they haven't changed into something else. Second, in Episode 4, it's made clear that the related phenomenon of antibiotic resistance in bacteria took the medical community by surprise—this means that it wasn't a prediction of evolution, except after the fact. Third, they fail to demonstrate that new information is involved, and the next segment shows that the opposite is true:

Veronica Miller of Goethe University in Germany experimented by ceasing all antiviral drug treatments to a patient. Then the few surviving original ('wild') types easily out-competed the vast numbers of resistant forms. She said this was a risk, because the wild types were also more dangerous, more efficient. The superior efficiency and reproductive success of the wild type implies that the others have acquired resistance due to a *loss* of information somewhere. This should not be surprising, because the same is true of many examples of antibiotic resistance in bacteria. E.g. the bacterium has an enzyme that usually has a useful purpose, but it also turns an antibiotic into a poison. So a mutation disabling this enzyme would render the antibiotic harmless. But this bacterium is still disabled, because the useful process the enzyme usually enables is now hindered, so it would be unable to compete in the wild with non-resistant ones. The information loss in both HIV and the bacterium is the *opposite* of what evolution requires. AiG has already explained antibiotic resistance in [Superbugs: Not super after all](#), and answers the question [Has AIDS evolved?](#)

IS THERE BAD DESIGN?

Kenneth Miller claimed that the eye has 'profound optical imperfections', so was proof of 'tinkering' and 'blind' natural selection. Miller hasn't presented an argument *for* evolution *per se* at all—because he presents no step-by-step way for the retina to have evolved—but it is purely an attack on a designer. Which is of course also an attack on Miller's own Darwinian version of 'god', one who has chosen to create indirectly (via evolution).

Miller raised the old canard of the backwardly wired vertebrate retina, as he has done elsewhere. The narrator (Liam Neeson) even claimed that the eye's 'nerves interfere with images', and that the so-called 'blind spot' is a serious problem. But these arguments have been refuted before, as shown below.

It would be nice if anti-creationists actually learnt something about the eye before making such claims (Miller is unqualified in both physical optics and eye anatomy), or even showed that the eye didn't function properly as a result. In fact, any engineer who designed something remotely as good as the eye would probably win a Nobel Prize! If Miller and the PBS producers disagree, then I challenge them to design a better eye with all the versatility of the vertebrate eye (color perception, resolution, coping with range of light intensity, night vision as well as day vision, etc.)! And this must be done under the constraints of embryonic development.

The retina can detect a single photon of light, and it's impossible to improve on this sensitivity! More than that, it has a *dynamic range* of 10 billion (10^{10}) to one; that is, it will still work well in an

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intensity of 10 billion photons. Modern photographic film has a dynamic range of only 1,000 to one. Even specialist equipment hasn't anywhere near the dynamic range of the eye, and I have considerable experience in state-of-the-art supersensitive photomultipliers. My Ph.D. thesis and published papers in secular journals largely involve a technique called *Raman spectroscopy*, which analyses extremely weak scattering at a slightly different frequency from that of the incident laser radiation. The major equipment hazard for Raman spectroscopists is scanning at the incident frequency—the still weak Rayleigh scattering at the same frequency would blow the photomultiplier (the newer ones have an automatic shut-off). I managed to safely scan the Rayleigh line (for calibration) only by using filters to attenuate the intensity of light entering the photomultiplier by a factor of 10^7 to 10^8 . But having to take such an extreme safety precaution made me envious and admiring of the way the eye is so brilliantly designed to cope with a far wider range of intensities.

Another amazing design feature of the retina is the signal processing that occurs even before the information is transmitted to the brain, in the retinal layers between the ganglion cells and the photoreceptors. For example, a process called *edge extraction* enhances the recognition of edges of objects. Dr John Stevens, an associate professor of physiology and biomedical engineering, pointed out that it would take 'a minimum of a hundred years of Cray [supercomputer] time to simulate what takes place in your eye many times each second' [*Byte*, April 1985]. And the retina's analog computing needs far less power than the digital supercomputers and is elegant in its simplicity. Once again, the eye outstrips any human technology, this time in another area.

Someone who *does* know about eye design is the ophthalmologist Dr George Marshall, who said:

'The idea that the eye is wired backward comes from a lack of knowledge of eye function and anatomy.'

He explained that the nerves could not go behind the eye, because that space is reserved for the choroid, which provides the rich blood supply needed for the very metabolically active retinal pigment epithelium (RPE). This is necessary to regenerate the photoreceptors, and to absorb excess heat. So it is necessary for the nerves to go in front instead. The claim on the program that they interfere with the image is blatantly false, because the nerves are virtually transparent because of their small size and also having about the same refractive index as the surrounding vitreous humour. In fact, what limits the eye's resolution is the diffraction of light waves at the pupil (proportional to the wavelength and inversely proportional to the pupil's size); so alleged improvements of the retina would make no difference.

It's important to note that the 'superior' design of Miller with the (virtually transparent) nerves behind the photoreceptors would require either:

- The choroid in front of the retina—but the choroid is opaque because of all the red blood cells, so this design would be as useless as an eye with a hemorrhage!
- Photoreceptors not in contact with the RPE and choroid at all—but then it would probably take months before we could drive after we were photographed with a flashbulb.

Some evolutionists claim that the cephalopod eye is somehow 'right', i.e. with nerves behind the receptor, and the program showed photographs of these creatures (e.g. octopus, squid) during this segment. But no one who has actually bothered to study these eyes could make such claims with integrity. In fact, cephalopods don't see as well as humans, and the octopus eye structure is totally different and much simpler. It's more like 'a compound eye with a single lens'.

See also the detailed response by the ophthalmologist Peter Gurney to the question [Is our inverted retina really 'bad design'?](#) This article addresses the claim that the blind spot is bad design, by pointing out that the blind spot occupies only 0.25% of the visual field, and is far (15°) from the visual axis so the visual acuity of the region is only about 15% of the foveola, the most sensitive area of the

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retina right on the visual axis. So the alleged defect is only theoretical, not practical. The blind spot is not considered handicap enough to stop a one-eyed person from driving a private motor vehicle. The main problem with only one eye is the lack of stereoscopic vision.

The program also alleges that the retina is badly designed because it can detach and cause blindness. But this doesn't happen with the vast majority of people, indicating that the design is pretty good. The occasional failures reflect the fact that we live in a fallen world—so what we observe today may have deteriorated from the original physically perfect state.

To answer other alleged ‘bad design’ arguments, there are two principles to consider:

1. Do we have all the information/knowledge on the issue?
2. Could this particular biological system have gone downhill since the Fall?

For more information about related evolutionary arguments, see [Vestigial Organs: What do they prove?](#) and [The panda thumbs its nose at the dysteleological arguments of the atheist Stephen Jay Gould.](#)

COULD THE EYE HAVE EVOLVED?

The program would have us believe it did. Dan Nilsson explained a simplistic computer simulation he published in a widely publicized paper.⁹ When ‘explaining’ the origin of the eye, Darwin started with a light-sensitive spot. This simulation starts with a light-sensitive layer, with a transparent coating in front and a light-absorbing layer behind.

Firstly, this layer bends gradually into a cup, so it can tell the direction of light rays increasingly well. This continues until it is curved into a hemisphere filled with the transparent substance. Secondly, bringing the ends together, closing the aperture, would gradually increase the sharpness of the image, as a pinhole camera does, because a smaller hole cuts out light, and as there are diffraction effects if the hole is too small, there is a limit to this process. So thirdly, the shape and refractive index gradient of the transparent cover change gradually to a finely focusing lens. Even if we were generous and presumed that computer simulations really have anything to do with the real world of biochemistry, there are more serious problems.

The biochemist Michael Behe has shown that even a ‘simple’ light sensitive spot requires a dazzling array of biochemicals in the right place and time to function. He states that each of its ‘cells makes the complexity of a motorcycle or television set look paltry in comparison’ and describes a small part of what’s involved:¹⁰

‘When light first strikes the retina a photon interacts with a molecule called 11-cis-retinal, which rearranges within picoseconds to trans-retinal. (A picosecond [10^{-12} sec] is about the time it takes light to travel the breadth of a single human hair.) The change in the shape of the retinal molecule forces a change in the shape of the protein, rhodopsin, to which the retinal is tightly bound. The protein’s metamorphosis alters its behavior. Now called metarhodopsin II, the protein sticks to another protein, called transducin. Before bumping into metarhodopsin II, transducin had tightly bound a small molecule called GDP. But when transducin interacts with metarhodopsin II, the GDP falls off, and a molecule called GTP binds to transducin. (GTP is closely related to, but different from, GDP.)’

‘GTP-transducin-metarhodopsin II now binds to a protein called phosphodiesterase, located in the inner membrane of the cell. When attached to metarhodopsin II and its entourage, the phosphodiesterase acquires the chemical ability to “cut” a molecule called cGMP (a chemical relative of both GDP and GTP). Initially there are a lot of cGMP molecules in the cell, but the phosphodiesterase lowers its concentration, just as a pulled plug lowers the water level in a bathtub.’



A transparent layer is also far more difficult to obtain than they think. The best explanation for the cornea's transparency is diffraction theory, which shows that light is not scattered if the refractive index doesn't vary over distances more than half the wavelength of light. This in turn requires a certain very finely organized structure of the corneal fibers, which in turn requires complicated chemical pumps to make sure there is exactly the right water content.¹¹

Therefore, these simulations do not start from simple beginnings but presuppose vast complexity even to begin with. Also, in their original paper, they admitted 'an eye makes little sense on its own', because the ability to perceive light is meaningless unless the organism has sophisticated computational machinery to make use of this information. For example, it must have the ability to translate 'attenuation of photon intensity' to 'a shadow of a predator is responsible' to 'I must take evasive measures', and be able to act on this information for it to have any selective value. Similarly, the first curving, with its slight ability to detect the direction of light, would only work if the creature had the appropriate 'software' to interpret this. Perceiving actual images is more complicated still. And having the right hardware and software may not be enough—people who have their sight restored after years of blindness take some time to learn to see properly. It should be noted that much information processing occurs in the retina before the signal reaches the brain.

It is also fallacious to point to a series of more complex eyes in nature, and then argue that this presents an evolutionary sequence. This is like arranging a number of different types of aircraft in order of complexity, then claiming that the simple aircraft evolved into complex ones, as opposed to being designed. For one thing, eyes can't descend from other eyes *per se*; rather, organisms pass on genes for eyes to their descendants. This is important when considering the nautilus eye, a pinhole camera. This cannot possibly be an ancestor of the vertebrate lens/camera eye, because the nautilus as a whole is not an ancestor of the vertebrates, even according to the evolutionists!

HAVE HUMANS EVOLVED FROM APE-LIKE CREATURES?

The PBS series shouts 'yes', and even showed a number of fossils of alleged 'ape men' for cumulative effect. This was very deceptive—some of the alleged 'ape-men' they showed are not even accepted by evolutionists as genuine intermediates anymore. For example, it showed an old photograph of Louis Leakey with *Zinjanthropus* (now *Paranthropus*) *boisei* or 'Nutcracker Man', sometimes called a robust australopithecine. But this was long ago placed in a side branch on man's alleged evolutionary tree.

The program also claimed that the DNA of chimps and humans was '98%' similar, and they said it's 'only a couple of spelling errors'. While the 98% is debatable, claiming a 'couple' of differences is outright deception—humans have 3 billion 'letters' (base pairs) of DNA information in each cell, so 2% difference is actually 60 million 'spelling errors'! Of course, this is not 'error' but twenty 500-page books worth of new information that needs to be explained by mutation and selection. Even if we grant 10 million years to the evolutionists, population genetics studies show that animals with human-like generation times of about 20 years could accumulate only about 1700 mutations in their genome in that time.¹² See also [Human/chimp DNA similarity: Evidence for evolutionary relationship?](#)

COMMON STRUCTURES = COMMON ANCESTRY?

Darwin mocked the idea, proposed by Richard Owen on the dramatization, that common structures (homologies) were due to a common creator rather than a common ancestor. But the common designer explanation makes more sense. If there was no commonality, then we might think there were many designers rather than one. Under evolution, it's *genes* that are inherited, not structures *per se*. So one would expect the similarities, if they were the result of evolutionary common ancestry, to be produced by a common genetic program (this may or may not be the case for common design). In many cases, this is clearly not so. E.g. the five digits of both frogs and humans—the human embryo develops a bony plate, then material between the digits dissolves; in frogs, the digits grow outwards from buds (see diagram, right). This argues strongly against the 'common ancestry' evolutionary

explanation for the similarity.

This program claimed that the DNA code is universal, and proof of a common ancestor. But this is false—there are exceptions, some known since the 1970s, not only in mitochondrial but also nuclear DNA sequencing. An example is *Paramecium*, where a few of the 64 codons code for different amino acids. More examples are being found constantly, as listed by the National Institutes of Health. The Discovery Institute pointed out this clear factual error at PBS Charged with “False Claim” on “Universal Genetic Code”—http://see www.ReviewEvolution.com/press/pressRelease_FalseClaim.php

The reaction by the PBS spokeswoman Eugenie Scott (17 Sept) to claims of factual errors in the series shows how the evolutionary establishment is more concerned with promoting evolution than scientific accuracy. Instead of conceding that the PBS show was wrong, she attacked the messengers, citing statements calling their (correct!) claim ‘so bizarre as to be almost beyond belief’. Then she even implicitly conceded the truth of the claim by citing this explanation: ‘Those exceptions, however, are known to have derived from organisms that had the standard code’.

To paraphrase: ‘It was wrong to point out that there really are exceptions, even though it’s true; and it was right for the PBS to imply something that wasn’t true because we can explain why it’s not always true.’ But assuming the truth of Darwinism as ‘evidence’ for their explanation is begging the question. There is no experimental evidence, since we lack the DNA code of these alleged ancestors. There is also the theoretical problem that if we change the code, then the wrong proteins would be made, and the organism would die—so once a code is settled on, we’re stuck with it. The Discovery Institute also demonstrated the illogic of Scott’s claims at PBS Spokesperson Tries to Tar Scientific Critics who are Ignored—see www.ReviewEvolution.com/press/pressRelease_FalseClaim.php

Certainly most of the code is universal, but this is again best explained by common design. Of all the millions of genetic codes possible, ours, or something almost like it, is optimal for protecting against errors.¹³ But the exceptions thwart evolutionary explanations.

ADDENDUM: DID WILBERFORCE REALLY SAY IT¹⁴

Writers dealing with the famous debate between Huxley and Wilberforce often repeat the story that the Bishop, towards the end of his speech, turned to Huxley and asked whether it was through his grandfather or his grandmother that he claimed descent from an ape? Huxley, in reply, is supposed to have said that he was not ashamed of having an ape as an ancestor, but he would be ashamed of having as an ancestor a man who used his abilities in a sphere of science with which he had no real acquaintance and who used aimless rhetoric in an appeal to religious prejudice.

J.R. Lucas sums up the evidence for and against this story in a long article in the *Historical Journal*,¹⁵ summarised in *Nature*.¹⁶ He points out that the audience was ‘larger than a full House of Commons’,

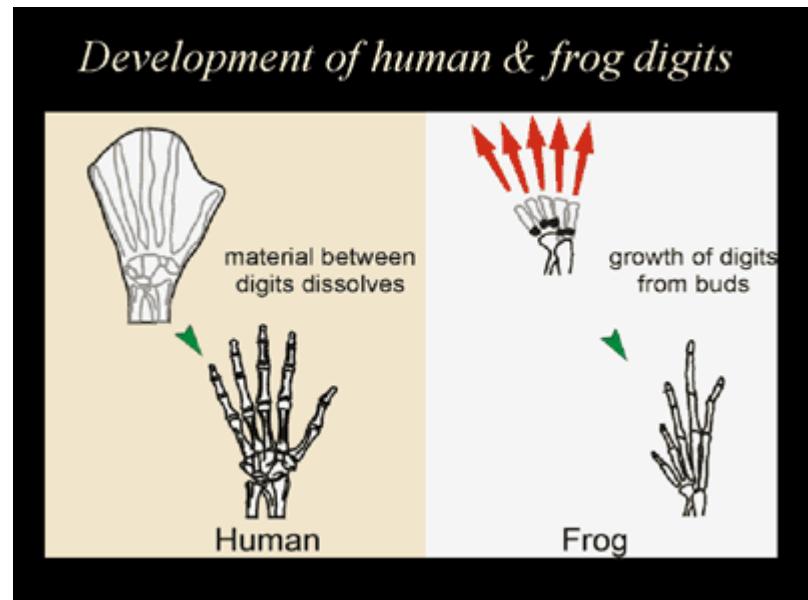


Diagram showing the difference in developmental patterns of frog and human digits.

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which means that, in the noisy and somewhat gladiatorial circumstances of this debate, not everyone would have correctly heard everything that was said.

Of Wilberforce's science, as presented in the debate, Lucas says, 'These were serious scientific arguments, worthy of a vice-president of the British Association. Darwin acknowledged their cogency'. He goes on to say,

'It is doubtful that Wilberforce asked Huxley whether he was descended from an ape. It makes a good story, but Wilberforce had used the first person plural in his review, and the use of the first person is borne out by Wilberforce's biography and one—admittedly late—account. What Wilberforce may have asked Huxley in the second person is where he drew the line between human descendants and ape-like ancestors, if, as was generally admitted, the offspring was of the same species as the parents.¹⁷ Huxley, however, was ready to answer the question he had not been asked. Three months earlier, in the April issue of the Westminster Review, he had accused critics of Darwin of making him out to be no better than an ape himself, and since Wilberforce was now criticising him for being a Darwinian, he must be calling him an ape too.'

It would seem therefore that Wilberforce did not try to ridicule Huxley, but rather the reverse was actually what happened. If so, it gives a very different picture of what really occurred at this famous debate.

FOOTNOTES

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Episode 2: Great Transformations

by Jonathan Sarfati

This episode tries to prove the ‘big picture’ of evolution, i.e. the ‘General Theory of Evolution’, i.e. particles to people. Of course, no experimental evidence can be offered, only inference. The experimental ‘evidence’ adduced in the series for ‘evolution’ is purely for change that doesn’t increase information content, and so actually has nothing to do with the ‘big picture’.

The program also made a revealing comment: ‘The evidence for evolution is all around us, if we choose to look for it.’ Revealing, not because I think the evidence really supports evolution but because of an important point inadvertently made. That is, creationists and evolutionists have the same evidence (‘facts’), but we interpret it differently because of our different axioms (starting assumptions). In reality, evolutionists have a materialistic bias, where a common designer is rejected *a priori*, and this applies even to evolutionists who believe in ‘God’. Therefore *any* facts are interpreted as evidence for evolution. This would probably explain why a lot of the science in the series is not even directly stated as evidence for evolution, but is shown as if it is. It also explains why fragmentary remains are interpreted as an important transitional form. Conversely, creationists do *not* dispute the facts, since we have the same facts; as shown we will frequently dispute assertions *claimed* to be facts when they are certainly not!

First, the narrator asserts that all living organisms come from a single source, and we can now trace branches and roots. They fail to explain how non-living chemicals could form a living cell by time and chance, despite the insuperable chemical hurdles (see Q&A: Origin of Life). Interestingly, the producer Richard Hutton, on this *Washington Post* online forum, answered the question ‘What are some of the larger questions which are still unanswered by evolutionary theory?’ as follows:

‘There are open questions and controversies, and the fights can be fierce. Just a few of them:

‘The origin of life. There is no consensus at all here — lots of theories, little science. That’s one of the reasons we didn’t cover it in the series. The evidence wasn’t very good.’ ...

No, it certainly isn’t, but of course he couldn’t have the viewers knowing that! I.e. the very roots of the alleged evolutionary tree are in very bad shape. So they gloss over the problems, assert that there really is a well-documented tree, and then move on to finding similarities between organisms and claiming that this proves a common ancestor.

DEEP TIME

Neil Shubin, a paleontologist from the University of Chicago, is a key star of this show. He claimed that the Earth is 4.5 billion years old, and to show how insignificant humans are, he scaled this time to one hour. Then, he claimed, animals existed only in the last 10 minutes, while humans appeared only in the last 100th of a second.

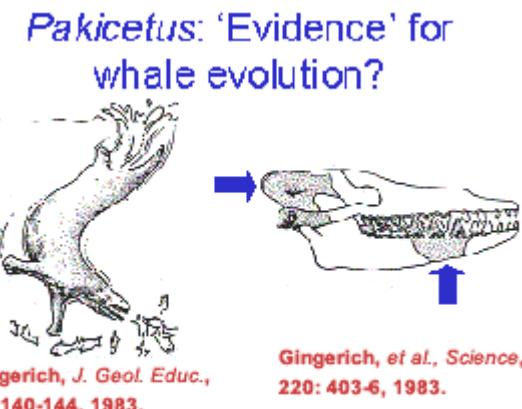
Despite the series’ claim to be respectful of Christianity, this is one of many examples of the contradiction of evolution/billions of years with Christ’s teachings. Jesus says in Mark 10:6, ‘But **from the beginning of the creation**, God made them male and female.’ This is consistent with His belief in a literal interpretation of Genesis, where the Earth was created about 4000 years before He spoke those words, and Adam and Eve created on Day 6, which on the scale of 4000 years is almost

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indistinguishable from the beginning. But it's diametrically opposed to Shubin's illustration, which has man appearing almost at the end, not the beginning—and has about 4.5 billion years without humans at all. There are also many scientific problems with any assertions about dating the Earth. The conflicts between billions of years with both Christ and true science are well outlined in [The earth: how old does it look?](#)

WHALE EVOLUTION?



Left: Gingerich's *Pakicetus* reconstruction

Right: Actual bones found (stippled).

Note: nothing below skull.

This was a tricky problem for Darwin, but nevertheless he still had faith that whales evolved from land mammals. The paleontologist Phil Gingerich of the University of Michigan agrees that 'it's a real puzzle how whales originally evolved.' But on this episode, he gives the impression that his fossil finds have gone a long way towards solving this puzzle.

PAKICETUS

Gingerich discovered in Pakistan a few skull fragments of a wolf-like creature that allegedly had an inner ear like a whale's. But this is far from conclusive. There wasn't any post-cranial skeleton found, so we haven't the faintest idea

how it moved. However, this didn't stop Gingerich from writing an article for schoolteachers with an illustration of an animal swimming and catching fish, and looking convincingly like an intermediate between land animals and whales. The diagram (above) shows the glaring contrast between reconstruction and reality.

New research since this series was produced has blown away this reconstruction. This demonstrates an oft-repeated phenomenon in evolutionary paleontology. Many of the alleged transitional forms are based on fragmentary remains, which are therefore open to several interpretations, based on one's axioms. Evolutionary bias means that such remains are often likely to be interpreted as transitional, as with Gingerich, and is also prevalent in ape-man claims. But when more bones are discovered, then the fossils nearly always fit one type or another, and are no longer plausible as transitional. It's also notable that alleged intermediate forms are often trumpeted in the media, while retractions are usually muted.

A prominent whale expert, Thewissen, and colleagues unearthed some more bones of *Pakicetus*.¹ The commentary on this paper in the same issue of *Nature*² says, 'All the postcranial bones indicate that pakicetids were land mammals, and ... indicate that the animals were runners, with only their feet touching the ground.' This is very different from Gingerich's picture of an aquatic animal! But their evolutionary bias is still clear, describing *Pakicetus* as a 'terrestrial cetacean' and saying, 'The first whales were fully terrestrial, and were even efficient runners.' The term 'whale' becomes meaningless if it can describe land mammals, and it provides no insight into how true marine whales supposedly evolved.

Also, 'solid anatomical data' contradict previous theories of whale ancestry. The news article Fossil Finds Show Whales Related to Early Pigs says:

'Until now paleontologists thought whales had evolved from mesonychians, an extinct group of land-dwelling carnivores, while molecular scientists studying DNA were convinced they descended from artiodactyls [even-toed ungulates].'

"The paleontologists, and I am one of them, were wrong," Gingerich said.'

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Such candor is commendable, and it shows the fallacy of trusting alleged ‘proofs’ of evolution. Pity that Gingerich is still committed to materialistic evolutionism.

AMBULOCETUS

This was mentioned fairly briefly in this episode, but it features prominently in the anti-creationist book *Finding Darwin’s God*, by Kenneth Miller who starred in Episode 1. On p. 265, Miller claimed, ‘the animal could move easily both on land and in water’, and contained a drawing of a complete skeleton and a reconstructed animal. This is misleading, bordering on deceitful and indicative of Miller’s unreliability, because there was no indication of the fact that far fewer bones were actually found than appear in his diagram. Crucially, the all-important pelvic girdle was not found (see diagram, right). Without this, it’s presumptuous for Miller to make that proclamation. His fellow evolutionist Annalisa Berta pointed out:

‘... since the pelvic girdle is not preserved, there is no direct evidence in Ambulocetus for a connection between the hind limbs and the axial skeleton. This hinders interpretations of locomotion in this animal, since many of the muscles that support and move the hindlimb originate on the pelvis.³

See also [A Whale of a Tale?](#)

BASIOSAURUS

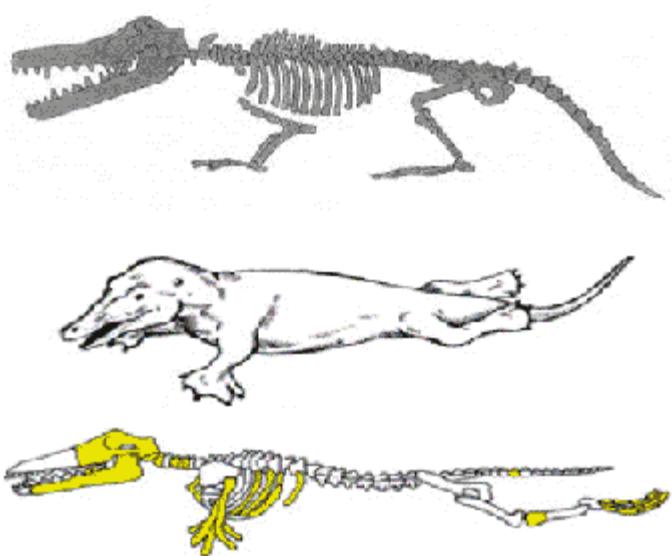
This serpentine and fully aquatic mammal has been known since the 19th century, but Gingerich discovered something new in some specimens in the Sahara Desert. The narrator pointed out that this area was under water once, and described a 100-mile stretch of layered sandstone called the ‘valley of the whales’, allegedly 40 million years old. They theorize that it was a protected bay where whales came to give birth and to die. Gingerich discovered what he alleged were a pelvis, leg bones and a knee cap, so was evidence of ‘functioning legs’ and ‘dramatic proof that whales were once fully four-legged mammals.’

But this contradicts other evolutionists, including Gingerich himself! E.g. the National Academy of Science’s *Teaching about Evolution and the Nature of Science* claimed, ‘they were thought to be non-functional’ (p. 18), and Gingerich himself said elsewhere ‘it seems to me that they could only have been some kind of sexual and reproductive clasper’.⁴ So these bones can be explained as a design feature, while the interpretation as ‘legs’ reflects evolutionary wishful thinking. (The article [The strange tale of the leg on the whale refutes another urban myth about whales being found with legs](#)).

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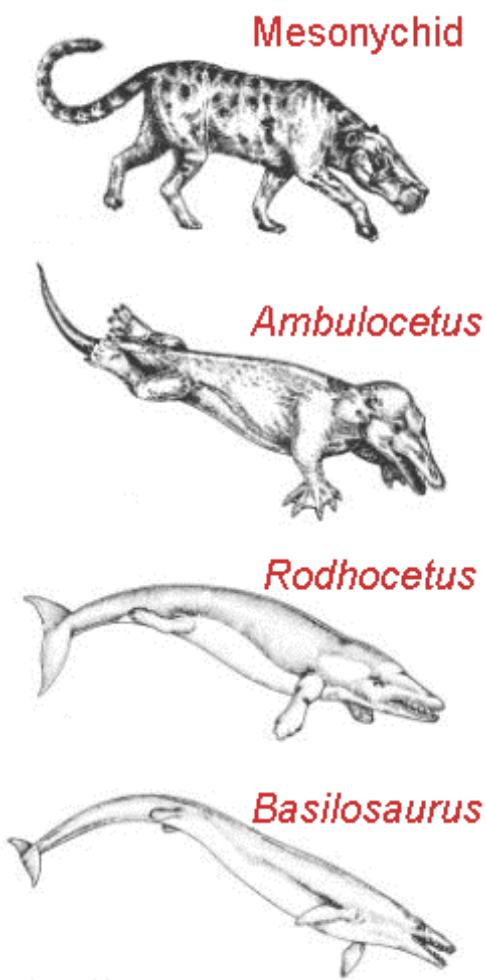
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Ambulocetus: Missing Link?



Top: Ambulocetus skeleton, as drawn in Miller’s book

Middle: Ambulocetus reconstruction, as drawn in Miller’s book



Alleged sequence of land-mammal to whale transition, after *Teaching about Evolution and the Nature of Science*

prediction of evolution; if whales used side-to-side movements, evolutionists could presumably have ‘predicted’ this because the tails of land animals also swish sideways.

My book *Refuting Evolution*, written to rebut *Teaching about Evolution and the Nature of Science*, has a chapter on alleged whale evolution that covers all this section in more detail, with full documentation.

TETRAPOD EVOLUTION?

Tetrapods are animals with four limbs, i.e. amphibians, reptiles, birds and mammals. In 1995, Shubin and Ted Deschler found in Pennsylvanian cliffs a shoulder bone of a tetrapod allegedly 370 million years old.

Cambridge University paleontologist Jenny Clack found an early tetrapod hand in Greenland, called *Acanthostega*. Supposedly this creature had gills, a fish-like tail, paddle-shaped fins, and a hand with fingers.

She said this refuted the usual textbook theory that fish evolved limbs for a selective advantage because they were being stranded in drying pools. Rather, the limbs evolved before they crawled on the land, while they were still aquatic. The selective advantage was the ability to escape the weird and wonderful predatory fish that lived during this time (called the Devonian Period).

Shubin stressed that ‘evolution wasn’t trying to do this’, and later the program said, ‘we’re

WHALE EVOLUTIONARY SEQUENCE?

The program claims that there is a series including *Ambulocetus*, *Rhodocetus*, etc., where the nostrils supposedly migrate to the back of the head. *Teaching about Evolution and the Nature of Science* contains a diagram (left) on p. 18. But when the series is examined, the sequence is not as smooth as they imply. E.g. this diagram failed to indicate that *Basilosaurus* is actually about 10 times longer than *Ambulocetus*, and the fragmentary nature of the remains has been discussed already.

Another problem is that *Basilosaurus* has a number of features that mean it could not possibly have been ancestral to modern whales, e.g. body shape, skull structure and tooth shape.

There is certainly no support for the program’s claim, ‘front legs became fins, rear legs disappeared, bodies lost fur and took on their familiar streamlined shape’. Waving the magic wand of mutation/selection is hardly sufficient without an observable mechanism that would effect these changes.

LOCOMOTION

The program also claims support for a transition from the way they move. Marine mammals move through the water with vertical undulating movements of the spine, just as many fast-running mammals do on land. Fish move with sideways undulations instead. But this could be another common design feature of mammals, like milk or hair. It’s also doubtful whether this is a unique

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here through chance coincidences'. This should make it clear that evolution, as believed by evolutionists, is not 'progressive' and shows no sign of a divine guiding hand (see again [Darwin's real message: have you missed it?](#)).

Shubin also highlighted the common limb pattern between tetrapods, illustrated by fish and humans having the sequence one bone/two bones/small bones/rods (digits). But this fails to explain the totally different developmental sequence, as previously explained.

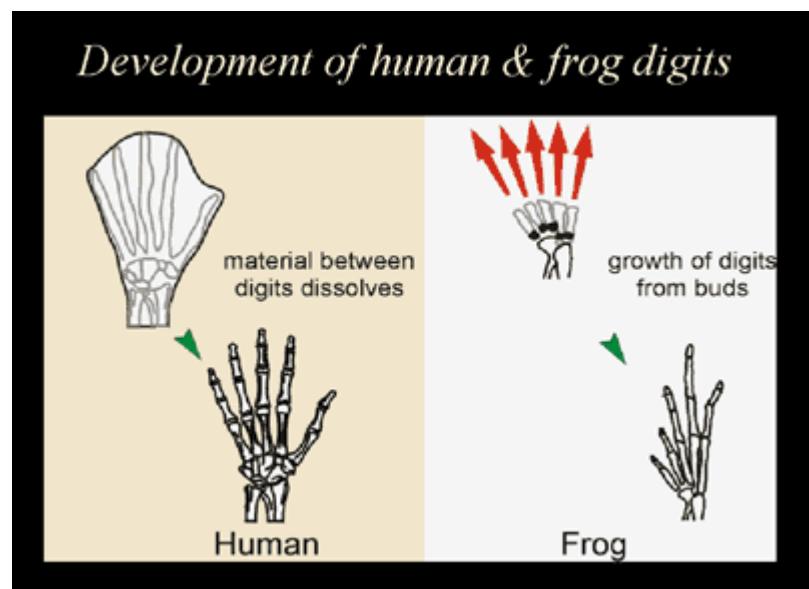


Diagram showing the difference in developmental patterns of frog and human digits.

CAMBRIAN EXPLOSION

Cambridge University paleontologist Simon Conway Morris explained that this was 'one of the greatest breakthroughs in the history of life.' Essentially all the different animal phyla (major groups) appeared abruptly, without any known transitional forms preceding them. According to evolutionary dating methods, this was about 500 million years ago. Morris acknowledged that Darwin recognized this as a problem for his theory, with animals appearing out of nowhere. Morris said, 'to a certain extent that is still a mystery.' Darwin predicted that animals diverged gradually from a common pattern, so there should be fossil examples of this divergence, while instead we see that the major differences arose abruptly at the beginning. Again, this is according to the evolutionary time frame; Biblical creationists see the fossil record not as a time sequence but a sequence of burial by Noah's Flood and its aftereffects.

Then the program shifted to the Burgess Shale, with lots of bizarre creatures, e.g. one with five eyes, another worm-like creature with large spines, and still another with prongs around its mouth. But none of this showed what the Cambrian animals could have evolved from. Supposedly the evidence shows that evolution tinkered with a few basic body plans, but provides no evidence for their *origins*.

GENE SWITCHES: MEANS OF EVOLUTION?

The 19th century biologist William Bateson found that embryos sometimes grew body parts in the wrong place. From this he theorized that there are underlying controls of certain body parts, and other controls governing where they go.

Ed Lewis investigated and won a Nobel Prize in 1995 for discovering a small set of genes that affect different body parts ([Hox or Homeobox—see Hox \(homeobox\) Genes: Evolution's Saviour?](#)). They act like 'architects of the body'. Mutations in these can cause 'dramatic' changes, as the program says. Many experiments have been performed on fruit flies (*Drosophila*), where poisons and radiation induced mutations.

The problem is that the mutations are always harmful. One famous case is *Antennapedia*, where legs grow where antennae should be. The program showed an extra pair of wings on a fly, but failed to mention that they were a *hindrance* to flying because there are no accompanying muscles. Both

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be *eliminated* by natural selection.

Walter Gehring of the University of Basel (Switzerland) replaced a gene needed for eye development in a fruit fly with the corresponding gene from a mouse. The fly developed normal fly eyes, i.e. compound eyes rather than lens/camera. This gene is called *Eyeless*, because absence of this gene means no eyes will form.

However, there is obviously more to the differences between different animals. *Eyeless* is a *switch*—it turns on the genetic information needed for eyes. But evolution requires some way of generating the new information that's to be switched on. The information needed to build a compound eye is vastly different from that needed to build a lens/camera type of eye. By analogy, a switch on a power socket can turn on a light or a laptop, but this hardly proves that a light evolved into a laptop!

All the same, the program says that *Eyeless* is one of a small number of common genes that cause a common body organisation in many animals. The program illustrated this with diagrams. Supposedly all evolution needed to do was reshuffle packets of information into different combinations.

But as shown, known mutations in these genes cause monstrosities, and different switches are very distinct from what is switched on or off. Also, the embryo develops into its basic body plan *before* these genes start switching—obviously they can't be the cause of the plan before they are activated! But the common genes make perfect sense given the existence of a *single* Creator.

HUMAN EVOLUTION?

Donald Johanson, the discoverer of the alleged missing link ‘Lucy’, featured here. Supposedly humans are part of evolution, despite our unique abilities to design and create works of art. Allegedly about 7 million years ago, our ancestors swung down from the trees and became bipedal. Then they could gather and carry food, and this food could be higher in energy. This fed bigger brains, which in turn helped food to be gathered more efficiently, in a positive feedback. But Johanson said that there are still differences in the skeletons of chimps and humans, e.g. differently shaped pelvis, a different angle where the spine meets the skull, and the way we walk with our knees together while apes walk with their legs far apart.

This episode offered little actual evidence. The fossil record is full of holes, and ‘missing link’ claims become boring after a while because they are so often discredited (e.g. see [Time’s alleged ‘ape-man’ trips up \(again\)](#)). The nearest thing to ‘evidence’ was Liza Shapiro, University of Texas, showing how flexible the lemur’s spine was. The lemur can move on all fours, but leap upright. But this doesn’t show how a quadruped can make all the transformations needed to turn it into a proper biped.

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Episode 3: Extinction!

by Jonathan Sarfati

This episode was rather strange. It hardly made any attempt to prove evolution per se. Rather, they talked a lot about species *dying out*, which is hardly news to anyone, but it doesn't itself shed any light on how species *arose* in the first place. There were plenty of *assertions* about new species diversifying to take the place of the old ones, but no *evidence* of any mechanism how this could occur. It's just another example of how vacuous words can become when survivors of extinctions are called 'evolution's big winners'. How exactly does the word 'evolution' explain anything here? The only purpose seems to be to further the indoctrination of the public with the idea that it does. But really, saying 'history's big winners' or 'winners of the lottery of life' would be just as informative.

HAVE MOST SPECIES BECOME EXTINCT?

This program made a common claim, that 95–99% of species have become extinct. However, the known record of extinct and extant species does not support this. The number of fossil species is estimated to be about 250,000, while there are about 3 million living 'species', or even more, depending on who's telling the story. But if this >95% claim were correct, we would expect many more fossil species than living ones.

The only plausible explanation is evolutionary bias. For evolution to be true, there would have been innumerable transitional forms between different types of creature. Therefore, for every known fossil species, many more must have existed to connect it to its ancestors and descendants. This is yet another example of evolutionary conclusions coming before the evidence. Really, the claim is an implicit admission that large numbers of transitional forms are predicted, which heightens the difficulty for evolutionists, given how few there are that even they could begin to claim were candidates.

MASS EXTINCTIONS

Supposedly there were five mass extinctions in Earth's history, caused by planet-wide catastrophes. The greatest was the Permian extinction about 250 million years ago, where 90% of species became extinct. The period allegedly represented by rock layers above the Permian, the Triassic, was almost void of life. But later, in the upper Triassic, the dinosaurs supposedly evolved. Alongside them were the mammal-like reptiles that supposedly evolved into mammals.

The best-known extinction was that of the dinosaurs, at the end of the Cretaceous, dated at 65 million years ago. Supposedly the small mammals, who kept out of sight when dinosaurs were around, managed to survive the catastrophe by hiding in burrows, while dinosaurs couldn't hide or protect their eggs. In the next period, the Tertiary, mammals are supposed to have diversified and filled the vacant niches.

The program presents the usual meteorite impact theory as fact, i.e. a chunk of rock the size of Mt Everest hit Earth at 25,000 mph. The many problems with this idea are ignored—see [Addendum: Did a meteor wipe out the dinosaurs? What about the iridium layer?](#)

In general mass extinctions are explained as a house of cards collapsing, where each card represents a species. One species may collapse, but then all other species that depend on it, either directly or



indirectly, will also collapse. Even without a catastrophe, there are many factors that can cause a ‘bottom card’ species to die out, e.g. a new predator or climatic change.

CREATIONIST EXPLANATION

As elaborated in the rebuttal to Episode 1, the Bible teaches that death is the ‘last enemy’, the result of Adam’s sin, and is an intruder into God’s very good creation. This is a problem for those who want to add millions of years to the Bible, and this program demonstrated just how much death is entailed by millions-of-years belief, because of the record of death (and disease, violence, etc) the fossils portray.

Biblical creationists would explain much of the fossil record by the global Flood of Noah’s day. However, this didn’t directly cause any land vertebrates to become extinct, because each kind was represented on the Ark. Many became extinct in subsequent centuries, because of factors already well known to conservationists. The Addendum Did a meteor wipe out the dinosaurs? What about the iridium layer? also summarizes the history of the dinosaurs from a Biblical perspective. But the Flood probably did cause many marine species to become extinct.

Creationists and evolutionists interpret the geological layers differently because of our different axioms. Evolutionists interpret the sequence of layers as a sequence of *ages* with different types of creatures; creationists interpret them as a sequence of *burial* by a global Flood and its after-effects. This makes better sense of phenomena such as living fossils and finding creatures such as the coelacanth that isn’t found in rocks ‘dated’ younger than 70 million years.

ECOLOGY AND EVOLUTION?

Forests

The program discusses how a healthy forest ecosystem has a large carnivore at the top of the food chain. It takes 100 pounds of plant to feed 10 pounds of herbivore, which in turn feeds 1 pound of carnivore. So the existence of carnivores indicates the health of the supporting animals and plants. Later on, Wildlife Conservation Society biologist Alan Rabinowitz claims that this forest exhibits ‘Evolution going on around us’, but all he means is the replacement of one species with another. Of course, *already-existing* species replacing other *already-existing* species has nothing to do with the origin of *new* species with new genetic *information*. Once again, ‘evolution’ is a vacuous catch-all term, with any change in population numbers grouped with the goo-to-you theory.

Founder effect

Then they move on to isolated habitats and the ‘founder effect’. This is where a single breeding pair or pregnant female colonizes a new niche, and carries only a fraction of the gene pool. Therefore its descendants also contain a small fraction, so the new population can be very different from the old. This also offers no comfort or support to the notion of evolution, because the new population has less information than the old.

Invasion

Another topic is biological invaders, the bane of all countries that depend on agricultural and livestock to feed their people and earn export dollars. The invaders are often more mobile and adaptive, so out-compete native species. Humans have enabled far more invasions as animals stow away on ships and in the undercarriage of airplanes, and some species have been introduced deliberately. Fordham University paleoecologist David Burney investigated what happened in Hawaii when Polynesians and then Europeans introduced new species. He claimed:

Evolution has now entered a new mode. Something altogether new is happening, and it has to do



with what humans do to the evolutionary process.

Ho hum, this is just another example of replacement of one species with another, which again has nothing to do with showing how particles could have turned into people.

Leafy Spurge

Pioneers introduced this weed to North Dakota from Russia, and it ‘threatens to kill off all native grasses.’ A cattle rancher claims that ‘it is a cancer to the land … it makes the land just totally useless’. Actually, the first claim is an exaggeration, and the second is a matter of perspective—sheep and goat farmers would have no problems with using the land.

The rancher said that herbicides were very expensive, so the narrator asks:

‘… what’s left? … The solution may be another invader—discovered when scientists learned what kept Leafy Spurge in check in its native Russia. It’s the flea beetle—a case of fighting evolutionary fire with fire.’

Canisters of flea beetles are dropped from airplanes, then the narrator says:

‘So now we’re in a race most of us don’t even know we’re running—to learn as much as possible about evolution before it’s too late.’

Huh? Using already-existing enemies of the leafy spurge requires ‘evolution’? This must be the nadir of the contentless nature of this word, even by the pathetic standards of the series. Farmers have used such commonsense biological controls for centuries, well before Darwin. Interestingly, one of the classic cases of successful biological control was the defeat of Australia’s cactus invader, the Prickly Pear, through the introduction of the *Cactoblastis* organism. John Mann, the scientist responsible for saving Australia from ecological and economic ruin in this way, was heaped with accolades and honours for his feat. Mann was a convinced Biblical creationist, who was interviewed before his death by our *Creation* magazine.

WHY BOTHER PRESERVING SPECIES?

This episode has a problem: first, it asserts that humans are just another species, then it insists that extinction is simply part of Earth’s history, and finally it moralizes that humans should try to preserve other species. The narrator says that humans ‘may be the asteroid that brings about the next mass extinction’, and that we ‘competed with other species and won.’

But if we’re just another species, then why shouldn’t we act like one? Why should we aid our competitors for survival, when other species act in self-interest? The only reason might be a practical one, that we might lose some species that are beneficial to us. But this is very different from a *moral obligation* to care for them. If we are all rearranged pond scum, then talk of moral obligation is meaningless. Under a consistent evolutionary worldview, our moral sentiments are merely chemical motions in the brain that happened to confer a survival advantage in our alleged ape-like ancestors.

ADDENDUM: DID A METEOR WIPE OUT THE DINOSAURS? WHAT ABOUT THE IRIDIUM LAYER?

The extinction of the dinosaurs is one of the greatest mysteries of secular science. It would not be if people believed the true eye-witness account of Earth’s history recorded in the Bible. This reveals that:

- Land animals (this includes dinosaurs) and man were created on Day 6 about 6,000 years ago—so dinosaurs lived at the same time as people.

Creation is a production of Answers Media.

**Answers
In Genesis
MINISTRIES**



- Adam sinned and brought death, disease and bloodshed into the world. Before then, no dinosaur could have died.
- A global Flood occurred about 1,656 years later, wiping out all land animals that breathe through nostrils (that weren't on the Ark). Thus billions of animals were buried quickly and formed fossils. This is when most dinosaur fossils formed.
- Noah took two of every kind of land animal (seven of the 'clean' ones) on board an ocean-liner-sized Ark — this included dinosaurs.
- After the Flood, the descendants of those dinosaurs existed for a while with humans, and there seem to be eye-witness accounts of them, e.g. in Job 40:15 ff. and in the many dragon legends found around the world.
- Eventually all the dinosaurs died out, except for possible rare sightings in uninhabited areas which have not been properly verified. The causes were probably no more dramatic than those that cause extinctions of other species, e.g. man's hunting, change of climate, loss of food source, fragmentation of habitat.

SECULAR THEORIES

Those who disbelieve the Bible have invented many different explanations for the demise of the dinosaurs:

- Mammals eating dinosaur eggs.
- New narcotic plants evolved.
- Global cooling/global warming.
- Loss of plants causing herbivores to starve, which in turn caused the carnivores to starve.
- Lowering of oxygen partial pressure in the atmosphere.

Great impact theory

The current 'glamour' theory was proposed by the geologist Walter Alvarez in about 1980, that a meteor strike 66.4 million years ago caused dramatic climatic changes much like 'nuclear winter'. This caused the extinction of the dinosaurs and many other species. His evidence was his discovery of an allegedly world-wide layer of clay with a high iridium content. His father Luis, who won the Nobel Prize in Physics in 1968 for work on subatomic particles, helped him publicize the theory. It is now accepted as 'proven fact' in many circles, and popularized in 'documentaries' such as *Walking with Dinosaurs*.

Problems with the 'great impact' theory

The secular book *The Great Dinosaur Extinction Controversy* exposes the way that the meteor explanation for the dinosaur extinction has become a new dogma that has way outstripped the evidence (see review by Carl Wieland in *TJ* 12(2):154–158, 1998). Some of the reasons are:

- The extinction was not that sudden (using evolutionary/long age interpretations of the geological record). The spread of fossils in the geological record makes sense if much of the sedimentary deposits were formed in Noah's Flood.
- Light-sensitive species survived.



- Extinctions don't correlate with crater dates.
- Modern volcanic eruptions don't cause global extinction patterns, even if they cause a temporary temperature drop.
- The iridium enrichment, supposedly a key proof of meteor impact, is not nearly as clearly defined as claimed.
- Drill cores of the apparent 'smoking gun' crater on the Yucatán peninsula in south-east Mexico do not support the idea that it is an impact crater.
- It seems that some scientists didn't speak out against the idea for fear of undermining the 'nuclear winter' idea, and being grouped with 'nuclear warmongers'.

The overview article by meteorologist Mike Oard, 'The extinction of the Dinosaurs' (*TJ* 11(2):137–154, 1997; download PDF file at http://www.answersingenesis.org/home/pdf_notice.asp?pdf=/home/area/magazines/TJ/docs/tjv11n2_extinct.pdf) explains many features of dinosaur fossils that are consistent with a flood, and dinosaur tracks consistent with fleeing from encroaching flood waters. Oard points out that iridium enrichment can be caused by massive volcanism, as many evolutionists agree. This would certainly have been a feature of the Flood year, associated with the breaking up of the 'fountains of the great deep' (Genesis 7:11). However, Oard agrees that the largest iridium anomalies were caused by meteorites striking during the Flood:

'Iridium-rich clay falling from the atmosphere would accumulate only during temporary lulls in the Flood.'

This explains the fact that so-called spikes are really composed of multiple spikes or are spread over a wider layer of sediment. John Woodmorappe has pointed out:

'there are now over 30 iridium "horizons" in the Phanerozoic record. These can be explained by a slowdown in sedimentation rate as iridium rained from the sky (whether from a terrestrial, or an extraterrestrial source). They pose no problem for the Flood at all.'

That is, the iridium layers mark lulls in the sedimentation rate during the Flood, the iridium 'rain' itself being more-or-less continuous during the Flood.

K/T (Cretaceous/Tertiary) boundary

Oard also pointed out that the K/T boundary supposedly marking the end of the dinosaur age is most likely not synchronous around the world, and is not defined coherently. Very few dinosaur fossils are actually found near this boundary. Sometimes the argument becomes very circular. For example, the end of the dinosaur era is supposed to be clearly marked in the geological column by the K/T boundary, but in many localities the K/T boundary is *defined* by the highest dinosaur fossil. Or else the Alvarez theory is supported by the iridium spike in the K/T boundary, but in some localities the K/T boundary is defined by the iridium spike.

CONCLUSION

The Bible provides the only coherent framework within which we can properly interpret history, including that of the dinosaurs. Other theories are doomed to failure, even the glamorous 'deep impact' theory, because all circumstantial evidence counts for nothing if it ignores the only eye-witness account we have of Creation and the Flood—the Bible.



Episode 4: The Evolutionary Arms Race!

by Jonathan Sarfati

This program aims to show that biological forces rather than the environmental ones drive evolution most strongly, interviewing the atheistic sociobiologist Edward O. Wilson extensively. The title reflects the struggle between predator and prey: as a prey species evolves stronger defense mechanisms, an attacker must evolve stronger mechanisms to survive, and vice versa. Of course, they think there is no design behind this: of all the individual prey animals, only those with copying mistakes in their genes that confer a strong defense will avoid being eaten, so pass on these genes to their offspring, so the next generations are more strongly defended overall. And faced with these stronger defense mechanisms, only those predatory individuals that have mutations conferring sufficiently strong attacking power will be able to eat the prey, while the others starve and fail to pass on their genes.

But as shown in the rebuttal to Episode 1, real evolution requires changes that *increase genetic information*, while non-information-increasing changes are part of the creation model. None of the examples presented in Episode 4 prove that information has increased, so provide no support of evolution over creation.

POISON NEWT

The program moves to Oregon, where there were mysterious deaths of campers. It turned out that newts were found boiled in the coffee pot—these rough-skinned newts (*Taricha granulosa*) secrete a deadly toxin from their skin glands, so powerful that even a pinhead-sized amount can kill an adult human. They are the deadliest salamanders on Earth. So scientists investigated why this newt should have such a deadly toxin.

They theorized that a predator was driving this ‘evolution’, and they found that the Common Garter Snake (*Thamnophis sirtalis*) was the newt’s only predator. Most snakes will be killed by the newt’s toxin, but the Common Garter Snake just loses muscle control for a few hours, which could of course have serious consequences.

But the newts were also driving the ‘evolution’ of the snakes—they also had various degrees of resistance to the newt toxin. Are their conclusions correct? Yes, they are probably correct that the predators and prey are driving each other’s changes, and that they are the result of mutations and natural selection. Although this might surprise the ill-informed anti-creationist, this shouldn’t be so surprising to anyone who understands the Biblical Creation/Fall model.

Is this proof of particles-to-people evolution? Not at all. There is no proof that the changes increase genetic information. In fact, the reverse seems to be true. The snakes with greater resistance have a cost—they move more slowly.

Since the PBS episode provides no explanation of the poison’s activity, it’s fair to propose a possible scenario (it would be hypocritical to object, since evolutionists often produce far more hypothetical ‘just-so’ stories): suppose the poison normally reacts with a particular neurotransmitter to produce something that halts all nerve impulses, resulting in death. If the snake had a mutation which reduced the production of this neurotransmitter, then the poison would have fewer targets to act upon. Another possibility is a mutation altering the precise structure of the neurotransmitter so that its shape no longer matches the protein. Either way, the poison would be less effective. But



either reduced production of the neurotransmitter or a less precise shape, would slow nerve impulses, meaning that muscle movement is slower.

So this is an information *loss* that happens to confer an advantage. This is far from the only example. The best known is sickle-cell anemia, where a mutation causes the hemoglobin to form the wrong shape, and fail to carry oxygen. People who carry two copies of the sickle-cell gene (homozygous) often develop fatal anemia. But this misshapen hemoglobin also resists the malaria parasite (*Plasmodium*). So humans who are heterozygous (have both a normal and abnormal gene) have some advantage in areas where malaria is prevalent, even though half their hemoglobin is less effective at its job of carrying oxygen. Another example is wingless beetles, which survive on windy islands because they won't fly and be blown into the sea.

As for the newt, a possible way that an information-losing mutation can result in increasing amounts of secretion is a mutation disabling a control gene, allowing overproduction.

There are other related examples, e.g. one way for *Staphylococcus* to become resistant to penicillin is *via* a mutation that disables a control gene for production of penicillinase, an enzyme that destroys penicillin. Then the bacterium over-produces this enzyme, which means it is resistant to huge amounts of penicillin. But in the wild, this mutant bacterium would be less fit, because it would squander resources by producing unnecessary penicillinase.

Another example is a cattle breed called the *Belgian Blue*. This is very valuable to beef farmers because it has 20–30% more muscle than average cattle, and its meat is lower in fat and very tender. Normally, muscle growth is regulated by a number of proteins, such as *myostatin*. However, Belgian Blues have a mutation that *deactivates* the myostatin gene, so the muscles grow uncontrolled and become very large. This mutation has a cost, in reduced fertility. A different mutation of the same gene is also responsible for the very muscular Piedmontese cattle. Genetic engineers have bred muscular mice by the same principle.

In all these cases, a mutation causes information *loss*, even though it might be considered ‘beneficial’. Therefore it is in the *opposite* direction required for particles-to-people evolution, as this requires the generation of *new* information.

DID GOD CREATE CARNIVORY?

According to the Bible, the original diet of both humans and animals was vegetarian (Genesis 1:29–30). So how do creationists explain carnivory today? This episode showed many examples of animals killing other animals, which doesn't seem like a ‘very good’ creation (Gen. 1:31). According to the Bible, death is ‘the last enemy’ (1 Cor. 15:26) and was introduced with Adam’s sin (Genesis 2:17, Gen. 3:17–19, Rom. 5:12, 1 Cor. 15:21–22). While these refer explicitly to human death, Adam’s sin affected the whole creation (Rom. 8:20–22), and this is further supported by the fact that the restored creation will have no carnivory (Isaiah 65:25). How this occurred is not specifically stated, but since creation was finished after Day 6 (Gen. 2:1–3), there is no possibility that God created new carnivorous animals. Instead, creationists have three explanations in general, although the specific explanation depends on the particular case. This is explained further in the *Answers Book*, Ch. 6:

1. The Bible appears not to regard insects as ‘living’ in the same sense as humans and vertebrate animals—they are never referred to as *nephesh chayyah*, unlike humans and even fish.
2. Before the Fall, many attack/defense structures could have been used in a vegetarian lifestyle. For example, even today, some baby spiders use their webs to trap pollen for food,¹ and there was the case of the lion that wouldn’t eat meat.² Even many poisons actually have beneficial purposes in small amounts.³ This PBS episode pointed out that microbes ‘help prime the immune system’, and that many allergies might be due to a society that’s too clean.



3. God foreknew the Fall, so He programmed creatures with the information for design features for attack and defense that they would need in a cursed world. This information was ‘switched on’ at the Fall.

For the poisonous newt, it seems that #3 is the best explanation for the molecular structure of the deadly toxin itself and the poison glands on the skin, as opposed to the possibility of increasing its production rate by information-losing mutations and natural selection. #3 is the best explanation for structures that seem specifically designed for attack and defense.

TUBERCULOSIS AND ANTIBIOTIC RESISTANCE

Microbes were described as a ‘predator’ of humans, although ‘parasite’ would be more accurate. Mummies show that Tuberculosis Bacillus (TB) affected Egyptians 4000 years ago. The Black Death wiped out one third of Europe’s population in 1347–1351, and the Influenza pandemic of 1918–1919 killed 20 million people—more than World War 1 that had just ended.

Antibiotics were considered the ‘magic bullet’, and there were optimistic claims even as late as 1969 that ‘infectious diseases were a thing of the past’. But they failed to anticipate the development of resistance. This shows that this was hardly a ‘prediction’ of evolution, but is really a phenomenon they try to explain ‘after the fact’ as due to evolution. As will be shown, there is nothing to support molecules-to-man evolution; rather, a properly understood creation model makes good sense of the evidence.

This episode discussed a new strain of TB that had arisen in the overcrowded Russian prison system, containing malnourished prisoners with weakened immune systems. One inmate, ‘Sasha’ (Alexandr), had failed to complete his course of antibiotics. This meant that a few bacteria survived because they had some resistance to the antibiotic, and then proliferated once the treatment stopped. The program itself makes it clear that the resistance was already present, so this is *not* evolution, although it *is* natural selection.

These resistant bacteria are not confined to the prison, but have spread because of travel. One 19-year-old Russian student, ‘Anna,’ has a strain resistant to five antibiotics. TB could claim 2–3 million lives per year.

But as shown, there is no proof that any antibiotic resistance is due to increased genetic information. The above example shows that the information was *already present*, and I previously explained how a *loss* of information could confer resistance. Sometimes bacteria can pass genes to each other by exchanging plasmids, and sometimes there will be genes conferring resistance. But of course, these examples involve no new information produced in the biosphere. For more information, see [Superbugs: Not super after all.](#)

EVOLUTION OF LESS HARMFUL BACTERIA?

Paul Ewald of Amherst College claimed that ‘evolution’ may not only be a problem, but could also be harnessed to ‘evolve’ less harmful bacteria. If a pathogen spreads by close contact between people, then it’s in its best interest not to make people so sick that they can’t move around. Those spread by water and insects tend to be deadly.

In the 1991 cholera epidemic in South America, a million people were infected, and 10,000 died. The bacterium (*Vibrio cholerae*) was spread by contaminated water, so ‘evolved’ high levels of toxicity. The solution was to clean the water supply, so that only healthier people could spread the germ. So the germ ‘evolved’ mildness, and many infected people didn’t even develop symptoms.

Here again, there is indeed natural selection, but the result is that *Vibrio cholerae* turn into *Vibrio cholerae!* There is no proof that any new information was produced, but rather, selection of existing



genetic variation.

This episode compared this phenomenon with breeding domestic dogs from wolves—again this involved *loss* of information.

PATHOGENS AND CREATION

Some people wonder where disease germs fit into the Biblical framework, if God created everything ‘very good’. Under this framework, obviously the Fall was responsible for disease, but how, if God had finished creating at the end of Creation Week? The phenomenon described in the previous section can provide some insights. It clearly shows that even something usually known as a deadly germ can have a mild variant that causes no illness. Presumably something like this was created during Creation Week—even today, *Vibrio cholerae* has a role in the ecosystems of brackish waters and estuaries, and the original may have had a role living symbiotically with some people. Even its toxin probably has a beneficial function in small amounts, like most poisons. The virulence arose after the Fall, by natural selection of varieties producing more and more toxin as contaminated water became more plentiful. No new information would be needed for this process. These and related concepts also help explain how disease germs (or germs that later became disease-causing) could have been carried on the Ark.⁴ There are also a number of possible benign pre-Fall roles for viruses.⁵ So once again some alleged evidence for evolution actually provides support for the Creation/Fall model.

Has immunity evolved?

Stephen O’Brien of the National Cancer Institute wondered why the big cats have ‘evolved’ resistance to a disease deadly to humans. There is a Feline Immunodeficiency Virus (FIV) that should cause AIDS-like symptoms. Supposedly the cats’ ancestors were almost wiped out by the virus, but some had resistant genes. Supposedly the FIV evolved to mildness. This concept was dealt with in the previous two sections.

More interesting was the claim that about 10% of humans have a ‘whopping mutation’ that confers resistance to HIV. This turns out to be the *loss* of certain receptors on the immune cells preventing the HIV from docking on them. Again, this change is in the opposite direction required to change particles into people.

SYMBIOSIS

The program describes the leaf-cutting ants of Brazil. They form colonies containing 8 million insects, and they cut leaves into pieces and bring them to the nest, but they don’t eat them. Rather, other leafcutter ants mulch them and used the mulch to grow a fungus ‘garden’. This fungus is used as food for the young leafcutters, which thus depend on the fungus for survival, but the fungus depends on the ants to provide the mulch.

But this fungus garden has a ‘weed’, a virulent mould that badly hinders the fungal growth. To combat this, some ants have a white waxy coating that turned out to be tangled mats of bacteria that produce antibiotics that kill the mould.

Presumably, by this stage in the series, the producers hope that viewers are so indoctrinated in evolution that they don’t even need to try to produce evidence. To the diehard evolutionist, any phenomenon at all can be adduced as ‘evidence’ for evolution. In this case, they don’t bother to explain how such a complex symbiosis could have evolved, but merely assert that the bacteria and mould are products of an arms race lasting 50 million years.



FOOTNOTES

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Episode 5: Why Sex?

by Jonathan Sarfati

This episode was one of the most revealing about the conflicts between evolution and Christianity. The usual propaganda is that ‘science’ (stipulatively defined as evolution) is about facts/evidence or ‘how’ questions, while religion deals with values/faith/morals or ‘why’ questions. As explained in the rebuttal to Episode 1, this is a faulty distinction, and this episode demonstrates this. Here, evolutionary psychology directly affects questions of sexual morality.

The program also spends much time discussing the *advantages* of a fully functional sexual reproductive system, but misleadingly implies that this is sufficient to explain its *origin*.

Sex is said to be more important than life itself, since it enables genes to be passed on to succeeding generations. Rutgers University evolutionary geneticist Robert Vrijenhoek even said:

‘That’s our immortality. That’s what connects us to humans on into the future. That’s what’s connected us to all our ancestors in the past. That’s what connects us to the ancestors that were fish, the ancestors that were protozoans, and the ancestors that were bacteria.’

Of course thus far the series has merely asserted this connection, apart from dubious implications from some common features (see rebuttal to Episode 2). It’s also important to note how evolution directly impinges on ‘religion’ despite the claims that they are compatible (see rebuttal to Episode 1). Vrijenhoek implies that immortality has nothing to do with survival of the individual.

ASEXUAL VS SEXUAL REPRODUCTION

The program shifts to Texas, where scientists investigated lizards that were entirely female. They laid eggs that hatched into lizards that were clones of the mother. This is called parthenogenesis, from Greek *parthenos* (virgin) and Latin *genesis* (from Greek *gignesthai* [to be born]). They seemed to do very well, so what’s the point of sex?

Disadvantages of sexual reproduction

Indeed, the program acknowledges that sex has many disadvantages, e.g. only 50% of the genes are passed on to an offspring. This means that there is a 50% chance of losing a beneficial mutation. And in a stable population (i.e. not changing the number of individuals), there is on average one surviving offspring per parent, so asexual reproduction is twice as efficient at passing on genes to the next generation. Sex also means that an optimal gene configuration can never be passed on in its entirety.

It is also biologically costly to maintain the sex organs, and to maintain mechanisms to stop the male’s immune system destroying his own (genetically different) sperm, and stop the female’s immune system destroying incoming sperm or the offspring she carries (in viviparous organisms). And as will be seen in the sexual selection section below, sometimes sexual displays can be cumbersome and make the organism more vulnerable. Females obviously expend a lot of time and energy if they must bear live young. It takes energy to find a mate, otherwise the organism will die without passing on its genes, and if one sex is eliminated, the species will become extinct. It’s a lot of trouble, considering that asexual organisms such as bacteria reproduce very quickly.



Because of these lizards, the narrator posed the question, 'Are males really necessary?' Males eat about half the food, and it means that only half the members of the population (females) are involved directly in bearing young. In an asexual population, *all* its members bear offspring directly.

Advantages of sexual reproduction

Since sexually reproducing species do well, males must have their uses. The program then shifts to a pool in Sonora, Mexico, inhabited by a species of minnows, both asexually and sexually reproducing ones. But they are infested with a parasite that causes black spot disease. Vrijenhoek says that the sexually reproducing minnows are more resistant than the asexual ones.

The researchers invoked the 'Red Queen Hypothesis', invented by Lee van Valen; Alice (in Wonderland) raced the Red Queen, and exclaimed that they had to keep running just to stay in the same relative position. Evolution is supposed to be a race, and the asexual minnows produced clones, so stopped evolving, so are easy targets. But the sexually reproducing minnows produced lots of variation, so presented a *moving target*. But other evolutionists say: 'The Red Queen idea is simply a cute name for a zoological myth.'¹

This neat hypothesis seemed to be questioned when a drought eliminated the minnows. When the pool was naturally recolonised, the parasites killed the sexually reproducing ones faster. But it turned out that human-introduced sexually reproducing minnows were still the most resistant of all. The natural colonizers turned out to be inbred, so lost the advantage of variability.

So it seems that the variability is a major advantage, and well worth paying the price of transmitting only 50% of the genes, and the other disadvantages of males. Sexual reproduction also has a 50% chance of losing a harmful mutation without cost to the population (death of an individual).

ADVANTAGE DOESN'T EXPLAIN ORIGIN!

Creationists can explain the origin of fully functioning sexual reproduction, from the start, in an optimal and genetically diverse population. Once the mechanisms *are already in place*, they have these advantages. But simply having advantages doesn't remotely explain how they could be built from scratch. The hypothetical transitional forms would be highly disadvantageous, so natural selection would work *against* them. In many cases, the male and female genitalia are precisely tuned so one could fit the other, meaning that they could not have evolved independently.

EVOLUTION OF SEX?

This episode features a cute cartoon of two single-celled creatures with eyes kissing and exchanging genes. Then the narrator intoned:

'Random change produced a creature that was small and fast, which turned out to be an evolutionary advantage. Organisms with reproductive cells like that are called males. Their goal is to find organisms with a different speciality—providing the nutrients life requires. They're called females. These early pioneers evolved into sperm and eggs.'

Hang on—not only is slick animation no substitute for evidence, but somewhere along the line this program jumped from alleged male and female single-celled creatures to multicellular organisms containing cells like them. Then the narrator continued:

'Males produce sperm by the millions—with so many potential offspring, it doesn't pay to be fussy about eggs. A better strategy is to try to fertilize as many eggs as you can. Eggs are more complex than sperm and take a larger investment of energy. Females make a limited number of them. Fewer eggs mean fewer chances to pass on genes, and that means that females—unlike males—do better if they're choosy. At a deep biological level, males and females want different

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things, regardless of how things appear on the surface. ... Small sperm vs large eggs. ... Quantity vs quality.'

At about the same time, the program showed a man and woman under a sheet, probably naked but not showing too much of that, indulging in sexual foreplay, then lots of sequences of animals having sex. Is this program really meant for young schoolchildren?

Then the program explains male competition for mates and ornate sexual displays, while females exercise choice. Supposedly the concept of female choice was often discounted in Victorian England (with a female head of state who ruled for more than 60 years).

But the program shifts to a role-reversing bird in Panama. Supposedly the crocodiles ate so many chicks that females leave the males in charge of the eggs while they try to reproduce again. The females are the ones who keep harems, and kill chicks and break eggs of other females. The narrator says:

'So now it's the females who care more about quality than quantity. Now it's the females who fight over mates. Over time, they take on traditionally male characteristics. ... So here is an evolutionary revelation about gender. Male and female roles are not set in stone. They're largely determined by which sex competes for mates, and which invests in the young.'

Before, it was the relative size and speed of sperm and egg that caused males to compete and females to invest more time with their offspring, and other behavioural differences. Now, competition and investment in young are no longer effects but are themselves causes that overturn the roles expected from the differences in gametes. What this really means is that evolution as an explanatory framework is so plastic that its proponents can explain mutually contradictory states of affairs, if they have enough imagination to create plausible just-so stories.

In line with the rest of the PBS series, this episode aims to indoctrinate readers to think that the origin of sex is well explained by evolution. A decent documentary would not have censored evidence against this view. In reality, evolutionists really have no idea how sex could have evolved. Even the atheist Richard Dawkins says:

To say, as I have, that good genes can benefit from the existence of sex whereas bad genes can benefit from its absence, is not the same thing as explaining why sex is there at all. There are many theories of why sex exists, and none of them is knock-down convincing. ... Maybe one day I'll summon up the courage to tackle it in full and write a whole book on the origin of sex.²

The smug assurances of this episode are also contradicted by the journal *Science*: 'How sex began and why it thrived remain a mystery.'³

SEXUAL SELECTION

Darwin is most famous for the idea that natural selection is a driving force behind evolution. But he realised that this would not explain a number of features that seem to be a hindrance, e.g. the peacock tail. So Darwin invoked the idea of sexual selection, where choice by the opposite sex played a huge part in determining which individuals were able to pass on their genes. Later on, sexual selection is invoked to explain the human brain.

Creationists deny neither natural nor sexual selection. For example, we think it's likely that sexual selection augmented natural selection in producing the different people groups ('races') from a single population of humans that were isolated after Babel. See [The Fallacy of Racism](#).

The difference is that creationists recognize that selection can work only on *existing* genetic information. Evolutionists believe that mutation provides *new* information for selection. But no known

mutation has ever increased genetic information, although there should be many examples observable today if mutation/selection were truly adequate to explain the goo-to-you theory. See [Beetle bloopers: Even a defect can be an advantage sometimes.](#)⁴

CHIMPS AND BONOBOES

The common chimpanzee *Pan troglodytes* and the bonobo (or pygmy chimp) *Pan paniscus* hybridize so are the same Biblical kind. Sometimes they are classified as the subspecies *Pan troglodytes troglodytes* and *P. t. paniscus* respectively within the same species. Although they look similar, live in similar environments and eat similar food, their behaviour is different.

Chimps are violent, and bonobos are peaceful. The program shows the San Diego Wild Animal Park, and displays bonobos having ‘every imaginable’ type of recreational copulation, both heterosexual and homosexual, with a running commentary worthy of a hyper-testosteronic adolescent schoolboy.

So how is their behavior explained? Supposedly by female solidarity: they ‘can form alliances and cooperatively dominate males’ whereas the chimp males abuse females. So how to explain female solidarity? ‘A relatively simple change in feeding ecology was responsible for this dramatic difference in social behavior.’ Female bonobos forage on the ground, so have opportunities for social interaction. Female chimps can’t do this because gorillas eat the food on the ground, so females must forage on fruit trees alone. Supposedly a drought 2 million years ago killed the gorillas, and enabled a population of chimps to forage on the ground and evolve into bonobos. What a pity, says the program, that we didn’t have a similar history and evolve ‘to be a totally different, more peaceful, less violent, and more sexual species.’

As usual, we shouldn’t expect actual *evidence* for this story. From the available evidence, it’s impossible to prove cause-effect. I.e., how can we disprove that it was the other way round, i.e. that female solidarity didn’t generate ground foraging behavior, or even that a gorilla invasion didn’t cause bonobos to devolve into chimps?

SEXUAL MORALITY VS EVOLUTIONARY PSYCHOLOGY

A female may well want the male with the best genes to ensure that her offspring are the ‘fittest’. But her best strategy for offspring survival could be finding a male who will stick around and help her care for the young. The male’s best strategy is to make sure the offspring are his, so monogamy would have a selective advantage.

But other evolutionary forces threaten monogamy. E.g. songbirds are monogamous, but sometimes a female will lust after a male with stronger genes. But this is risky—if the ‘husband’ finds out, he could kill the offspring.

Concepts from animals are applied to humans in the new field of evolutionary psychology. Geoffrey Miller claimed that our brain is too extravagant to have evolved by natural selection. He claimed, ‘It wasn’t God, it was our ancestors,’ via sexual selection, that shaped our brain ‘by choosing their sexual partners for their brains, for their behavior, during courtship.’ Art, music and humor played the part of the peacock tail.

Supposedly this is borne out by tests of human attraction. Men prefer women’s faces with full lips, indicating high estrogen; and other facial features, indicating low testosterone. Both are indicators of fertility. So now males do make choices despite having fast and small sperm? Once more, evolution explains *any* state of affairs, so really explains nothing.

Women looking for a short-term fling, or who are ovulating, prefer more masculine faces, indicating ‘good’ genes. But they prefer more feminine ‘gentler’ men for a long-term relationship, because they will be more likely to help care for her children. But appearances can be deceptive. We also wonder



whether a face of a person from a different people group would be picked as often, although there is no disadvantage to the offspring's genes from so-called inter-racial marriages.⁵

While there's a fleeting disclaimer that evolutionary psychology is controversial even among evolutionists, this program presents Miller's ideas uncritically and unchallenged. But a review of his book *The Mating Mind* in *New Scientist* said:

'How does one actually test these ideas? Without a concerted effort to do this, evolutionary psychology will remain in the realms of armchair entertainment rather than real science.'⁶

A leading evolutionary paleoanthropologist, Ian Tattersall, was equally scathing of Miller's book:

'In the end we are looking here at the product of a storyteller's art, not of science.'⁷

WHY THIS EPISODE?

In searching for explanations as to why evolutionists would feel passionately enough about their belief system to spend so many millions foisting it upon the public as in this series, one may not have to look much further than this segment. It is as if those looking for justification of an 'anything goes' approach to sexual morality have had a major hand in this segment. With humans already portrayed as just an advanced species of ape, and sex as a mere tool for propagation of genes, the way the program dwelt on the random hetero/homo 'flings' of our alleged bonobo 'cousins', and the association with an allegedly superior, more peaceful lifestyle, was telling.

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Episode 6: The Mind's Big Bang

by Jonathan Sarfati

This episode attempts to explain the biggest difference between humans and animals: our mind, including the advantages of language. However, it makes hardly any attempt to *prove* evolution; rather, it *assumes* it, and makes up just-so stories to explain the differences given this assumption.

ORIGIN OF MANKIND

The program begins deep in a cave in France, where archaeologist Randy White explores cave paintings, allegedly 30–40 ka (kilo annum = thousand years ago). The narrator intones about finding out how our ancestors became truly human, and how the mind was born. Then the scene shifts to the Rift Valley in East Africa, where ‘humans began’.

Supposedly our branch of the evolutionary tree split off 6 Ma (mega annum = million years ago) from the line leading to chimps. Our ancestors swung down from the trees and became bipedal about 4 Ma, tools were first made 2.5 Ma, early humans began to leave Africa 2 Ma but they would all eventually become extinct, while truly modern humans left Africa 50–60 ka. This is all ‘documented’ with computer graphics, then by actors.

Internal evolutionary squabbles overlooked

As shown later, this program advocates what is called the ‘Out of Africa’ model, without saying so. This is where modern humans came out of Africa and replaced less evolved hominids that had emerged from Africa much earlier. But there is another evolutionary idea, called the ‘multi-regional’ or ‘regional-continuity’ hypothesis, where the hominids that emerged from Africa 2 Ma evolved into modern humans in many parts of the world. This is one of the most vitriolic debates among paleoanthropologists, yet this episode presents only one side. The acrimony between the proponents of these rival theories is due, according to the anthropologist Peter Underhill of Stanford University, to: ‘Egos, egos, egos. Scientists are human.’ We think *both* sides are right—in their criticisms of each other, because humans did not evolve at all! Dr Carl Wieland explains both the ‘Out of Africa’ and regional-continuity ideas and offers a Biblical view in his article, ‘No Bones about Eve.’

Human distinctives

The program showed a skull dated 100 ka, and said that the owner could have been dressed up in modern clothes and it would hardly raise an eyebrow. Massachusetts Institute of Technology psychologist Steven Pinker pointed out that modern human babies anywhere in the world can learn every language in the world, and counting, as well as grow to understand computers. So he suggested: ‘the distinctively human parts of our intelligence were in place before our ancestors split off into the different continents.’

The humans who left Africa 50–60 ka encountered the hominids that had left earlier, that had evolved into Neandertals. They were bigger and stronger than we are, had bigger brains, and were characterized by a big nose, receding chin (prognathism) and forehead, almost no cheek, and prominent brow ridges (supraorbital tori). But they were allegedly less creative, with almost no symbolic life or art, and unstructured burial of their dead. Their spear tips were easy to make from chipping stone, but had low range so were mainly for stabbing. Supposedly they learned by imitation,

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rather than passing on information via a highly developed language.

The late arrivals, however, had a structured burial of their dead, made long-range spears with some difficulty by carving antlers for tips. They also invented a spear thrower. Most importantly, they had a sophisticated language that enabled them to transmit information across both distance and time.

They also produced art and culture. The program demonstrates a ‘spit painting’ technique they could have used for their cave paintings, and shows that they may have played music by using speleothems (stalactites and stalagmites) as natural percussion instruments.

CREATIONIST VIEW OF CAVE MEN AND NEANDERTALS

The Bible teaches that the first man, Adam, was made from dust and the first woman was made from his rib—see rebuttal 7. Also, Genesis 1 teaches that living creatures reproduce ‘after their kinds’—see rebuttal 1. Therefore we would expect no continuity between man and the animals.

The ‘links’ are still missing!

The ‘ape-men’ fossils are often based on fragmentary remains, and this is true of the latest of a long series of ‘missing link claims’, *Ardipithecus ramidus kadabba* (see [Time’s alleged ‘ape-man’ trips up \(again\)](#)). But when more bones are found, the specimens are found to be either man or non-man (e.g. australopithecine). The paper ‘The non-transitions in “human evolution”—on evolutionists’ terms concludes from the analysis of a number of characteristics that *Homo ergaster*, *Homo erectus*, *Homo heidelbergensis*, and *Homo neanderthalensis* were most likely racial variants of modern man, while *H. rudolfensis* and *H. habilis* were just types of australopithecines, which the evolutionary anatomist Dr Charles Oxnard showed were more different from both chimps and humans than these are from each other.

Cave men and the Bible

One important event recorded in the Bible is the confusion of languages at Babel. The obvious effect was to produce the major language families, from which modern languages have developed (see below). But the division of people according to their newly created language groups had other effects too.

Babel resulted in the isolation of small people groups, each containing a fraction of the total gene pool. This would help fix certain characteristics. Natural selection and sexual selection would act on these, producing the different people groups (‘races’) we see today. Go to <http://www.answersingenesis.org/home/area/faq/racism.asp> for more information.

Also, some people groups would be isolated from civilization. Consider even the typical small extended family group today, if suddenly isolated from civilization, e.g. on a desert island. Many such groups would not have the ability to smelt metals or build houses. Therefore they would have to use the hardest material available (stone) and make use of already-existing dwellings (caves). Different family groups would also have different levels of artistic ability. So it shouldn’t be too difficult to accept that humans such as *Homo erectus* and Neandertals were probably post-Babel humans who became isolated from major cities, and developed certain physical characteristics because certain genes became fixed due to the small population and selective factors. The notion of a ‘stone age’ is fallacious—rather, it’s a cave/stone technology stage of different people groups. Some people even today have this level of technology, but they live at the same time as us, and are just as human.

HUMAN BRAIN UNIQUENESS

Pinker points out that the human brain contains 100 billion cells, and more importantly, it is wired with 100 trillion connections, ‘wiring it in precise ways to produce intelligence’. But he attributed

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this to mutations over 10s and 100s of thousands of years. But he has yet to find a single mutation that could increase information, let alone the many required to wire the cerebral supercomputer correctly.

Supposedly this would have been driven by selection for ability to manipulate others. Better language control means better social control.

Human v chimp minds

Psychologist Andrew Whiten of the University of St Andrews in Scotland tested how young children learned. Incidentally, on the lintel above the entryway to the school, was the Latin ‘In principio erat Verbum’, the Vulgate translation of John 1:1, ‘In the beginning was the Word’. He tested children with small models of people, where one ‘person’ puts an object in one place, goes away, then another ‘person’ takes this object and hides it somewhere else. Then the first ‘person’ returns, whereupon the child is asked where he or she would look for the object. A 3-year-old suggests the new hiding place, while a 5-year-old correctly realizes that the first ‘person’ would have no way of knowing that the object was moved, and would look in the place he left it. Whiten concluded that by the age of three:

A child cannot ascribe actions to others. But by the age of five, the child’s brain has developed the capacity for stepping into someone else’s mind.’

The program contrasts this with chimpanzees, which are incapable of this at any age, ‘No chimp has passed the test of attribution of false belief.’

LANGUAGE

There are about 6300 languages in the world today. They all have certain constraints, and obey strict rules, called syntax. This enables us to hierarchically organize information, which is something chimps cannot do, even with the best training in signing.

There is a certain window of opportunity for learning syntax by imitation that gradually closes after the age of seven. The program shifted to Managua, the capital of Nicaragua, where we meet ‘Mary No-name’. She was born deaf, and no one taught her sign language, so she never had a chance to learn syntax. She is still intelligent enough to communicate with some signs, but only to people who know the context.

After the revolution, US sign language experts tried to teach sign language to deaf people from isolated villages, but failed. The children developed their own sign language instead, which is a real language with proper syntax and as much capacity for expressing complex thought as spoken language. They wanted to communicate with other people like them rather than have a language imposed upon them.

Deaf people actually process sign language with the same areas of the brain that hearing people use to process spoken language, including Broca’s area and Wernicke’s area. This is shown by deaf patients who have damage to either area, who have an equivalent type of aphasia (language impairment) in sign language to that a hearing person would suffer in spoken language.

Evolution of language?

None of the above has anything to do with evolution. The language processing areas are unique to humans, and enable us to use syntax in both written and sign language.

All the same, Richard Dawkins of Oxford University presents his usual storytelling about how language conferred a selective advantage, so left more offspring. It’s interesting that the only topic



this well-known propagandist for neo-Darwinism is interviewed on is language, although Dawkins' field is biology, not linguistics. It's also notable that the PBS series did not show Dawkins promoting his rabid atheistic religion, which he makes plain is a main reason for his promotion of Darwin. Presumably the producers didn't want to make the materialistic implications of evolution *too* obvious to an American public that might still be repulsed by overt atheism.

Robin Dunbar of Liverpool University researched the way people use language, and he rejects the idea that the main function is to exchange information. Rather, about $\frac{2}{3}$ is social interactions, what he called 'gossip'. So natural selection favored those with the most refined social skills, which would have the advantages of holding big groups together and being able to find out information about third parties.

Difficulties with language evolution

It's one thing to claim that languages evolved, but it's another to provide a mechanism. Evolutionists usually claim that languages evolved from animal grunts. Some even claim that the continuing change of languages is just like biological evolution. However, actual observations of language present a very different picture.

First, ancient languages were actually extremely complex with many different inflections. There is no hint of any build-up from simpler languages. E.g. in the Indo-European family, Sanskrit, Classical Greek and Latin had many different noun inflections for different case, gender and number, while verbs were inflected for tense, voice, number and person. Modern descendants of these languages have greatly *reduced* the number of inflections, i.e. the trend is from complex to simpler, the *opposite* of evolution. English has almost completely lost inflections, retaining just a few like the possessive "–'s".

English has also lost 65–85% of the Old English vocabulary, and many Classical Latin words have also been lost from its descendants, the Romance languages (Spanish, French, Italian, etc.).

Second, most of the changes were *not* random, but the result of *intelligence*. For example: forming compound words by joining simple words and derivations by adding prefixes and suffixes, modification of meaning, and borrowing words from other languages including calques (a borrowed compound word where each component is translated and then joined). There are also unconscious but definitely non-random changes such as systematic sound shifts, for example those described by Grimm's Law (which relates many Germanic words to Latin and Greek words). (From [Talking Point](#) and 'The development of languages is nothing like biological evolution').

MEMES

Dawkins said:

'The only kind of evolutionary change we're likely to see very much of is not genetic information at all, it's cultural evolution. And if we put a Darwinian spin on that, then we're going to be talking about the differential survival of memes, as opposed to genes.'

Dawkins proposed the meme idea long ago in this book *The Selfish Gene*, and psychologist Sue Blackmore of the University of West of England has been one of his recent champions. She said:

Memes are ideas, habits, skills, gestures, stories, songs—anything which we pass from person to person by imitation. We copy them ... just as the competition between genes shapes all of biological evolution, so it's the competition between memes that shapes our minds and cultures.

... Nowadays I would say that memetic evolution is going faster and faster, and it has almost entirely taken over from biological evolution....



'The more educated you are, the less children you have. That is memes fighting against genes.'

Now memes have apparently found a new home, the Internet, and it has actually enslaved us, we are told.

Blackmore even believes that the idea of the ‘self’ is an illusion produced by competing memes in the brain. But under her own system, we must ask her, ‘Who is (or rather, what are) actually proposing this idea?’

But it becomes ridiculous when things such as the Internet, birth control, any invention, insulin, are called ‘memes’. A term that describes everything really describes nothing. All that she’s done is apply the same label to just about anything, but this adds nothing to our knowledge.

It’s no wonder that the evolutionist Jerry Coyne called Blackmore’s book ‘a work not of science, but of extreme advocacy’. He says that memes are ‘but a flashy new wrapping around a parcel of old and conventional ideas.’ Coyne also believes that evolutionary psychology is non-science (and nonsense). Coyne is no creationist sympathizer but an ardent—but ineffective—opponent of creation.

As the Discovery Institute critique of the PBS series points out, if the likes of Eugenie Scott were truly concerned about non-science being taught in the science classroom, she would oppose evolutionary psychology and memetic evolution as well, and certainly not support using this PBS series in science classrooms. No, what she’s opposed to are challenges to her materialistic faith.



Episode 7: What about God?

by Jonathan Sarfati

This episode tries to obscure the obvious, that evolution and Biblical Christianity are diametrically opposed. Actually, they hardly discuss *Biblical* Christianity, but interview people who believe that ‘God’ used evolution. They do interview representatives of Biblical Christianity, but they omit the strongest case of the best defenders, and give much airtime to those who haven’t the faintest idea about defending it. But the program may be useful, clearly showing the baneful effects of compromise, and it should also raise alarms in pastors to exhort their flock to be ready with answers, as the Apostle Peter commanded in 1 Peter 3:15.

AIG SEMINAR SNIPPETS SHOWN

The narrator talks about ‘Christian fundamentalists like Ken Ham’, but never defines the word, of course. Presumably they hope to exploit modern connotations of the word, and they would have received an unexpected bonus with the recent terrorist attack, attributed to Muslim ‘fundamentalists’. But Paul Enns states:

Historically, fundamentalism has been used to identify one holding to the five fundamentals of the faith adopted by the General Assembly of the Presbyterian Church of the USA in 1910. The five fundamentals were the miracles of Christ, the virgin birth of Christ, the substitutionary atonement of Christ, the bodily resurrection of Christ, and the inspiration of Scripture.¹

Of course Mr Ham and *AiG* as a whole uncompromisingly affirm fundamentalism in its historic sense.

The narrator prattles about how Mr Ham is one of those who teach a literal interpretation of the creation accounts *[sic]* in Genesis. This is designed to imply that there is something unusual about taking Genesis literally, but ignores what *AiG* teaches about interpreting historical narrative as historical narrative, and poetry as poetry, and the distinctions between them—see [Should Genesis Be Taken Literally?](#)

The Hebrew grammar of Genesis shows that Genesis 1–11 has the same literary style of Genesis 12–50, which no one doubts is historical narrative. For example, the early chapters of Genesis frequently use the construction called the *waw consecutive*, usually an indicator of historical sequence; contain many ‘accusative particles’ that mark the objects of verbs, and terms are often carefully defined. But Hebrew poetry is characterized by parallelisms, which are absent from Genesis, except where people are cited, e.g. Genesis 4:23. If Genesis were truly poetic, it would be like that verse throughout.²

The mention of ‘creation accounts’ is simply a hint at the defunct ‘documentary hypothesis’, amply refuted by [Did Moses really write Genesis?](#) The charge of contradiction between Genesis 1 and 2 is amply resolved by noting that Genesis 1:1–2:4a is a summary outline of the whole creation, while Genesis 2:4b ff. focuses on the creation of male and female, so they are complementary rather than contradictory—see [Genesis Contradictions](#).

Ken Ham is interviewed, saying that evolution is an evil to be fought, and pointing out the conflicts between the Bible and secular ‘science’ that deals with origins. Then the program shows snippets



from a *free* seminar he gave, but deceitfully shows money changing hands at the same time as they show people entering the auditorium. But the money was either for books, videos etc., or for another seminar (most *AiG* meetings are free). The program presumably wished to present *AiG* as in it for the money.

Then they showed Ken presenting a number of arguments, but the *omissions* in the PBS program were conspicuous. They were present for the whole seminar, and interviewed him for two hours. They omitted one key problem for all proponents of evolution or billions of years, discussed in the rebuttals of Episodes 1 and 4, the problem of death and suffering before Adam's sin. Ken Ham also presented extensive scientific criticisms of evolution in both the seminar and interview, e.g. showing that natural selection and variation, e.g. breeding of dogs, merely involves *sorting* and *loss* of genetic information, while goo-to-you evolution requires *increase* of information (see rebuttal to Episode 1).

But presenting this information wouldn't suit the PBS propagandists for two reasons:

- In general, they wish to portray all objections of evolution as 'religious'. Of course, they must ignore the many scientists who are creationists, as well as most of the founders of modern science—see [Voices for Creation](#).
- Specifically, these points blow most of the 'evidence' presented on the programs sky high, as shown in previous rebuttals.

SCOPES TRIAL AND SPUTNIK

The narrator talks about the famous Scopes Trial (1925), and says that William Jennings Bryan was victorious, and that it had the 'chilling effect' of expunging evolution from science curricula from many states. Amazingly, for a series containing millions of dollars worth of misinformation, it didn't present *Inherit the Wind* as a serious account of the trial. A good thing, because of its gross distortions documented in 'Inherit the Wind—an historical analysis.'

Then the program showed the Sputnik, and claimed that American authorities were so alarmed that the Soviets beat them into space that they decided to make science education a priority. Somehow evolution was smuggled in there. However, the science that put spacecraft on the moon is nothing like evolution. Rocket science involves repeatable experiments in the observable *present*; evolution is a just-so story to explain the unobservable *past* without God's direct intervention. It's especially ironic that the leader of the Apollo program, Wernher von Braun, was a creationist!

It's also blatantly revisionist history. During this alleged scientific nadir of supposed evolution censorship between Scopes and Sputnik, American schools produced more Nobel prizes than the rest of the world combined. This was especially pronounced in the biological field (Physiology and Medicine), supposedly one that can't do without evolution—America produced *twice* as many as all other countries. The Soviet Union beat the USA into space merely because the totalitarian government made it a top priority. While the USA had a good space program, there were other spending priorities, such as helping a war-torn world rebuild. When the USA put its mind to it, it quickly surpassed the USSR, and was the first to land men on the moon in 1969. If it had needed scientists trained in evolution, the moon landing wouldn't have happened till the next generation had gone through the public school system.³

The PBS series is not the only one trying to equate 'science' with evolution. One of the most vociferous anti-creationist organisations is the pretentiously named National Center for Science Education. This is a humanist-founded organisation, and its chief spokesperson, Eugenie Scott, is the winner of humanist awards and is also a consultant for the PBS series. It's significant that the only 'science education' NCSE seems interested in is evolution—not chemistry, physics, astronomy, or even experimental biology (or rocket science for that matter). See [How Religiously Neutral are the Anti-Creationist Organizations?](#) and [A Who's Who of evolutionists](#).

WHEATON COLLEGE: COMPROMISE CAUSES CONFUSION!

Wheaton College is said to be a conservative Christian college. According to its Web site, costs for 2001–2002 (9 months, 2 semesters) total \$16,390 in tuition fees alone (room, board, books and personal expenses add another \$6,844). The Web site claims:

'Wheaton College selects candidates for admission from those who evidence a vital Christian experience, high academic ability, moral character, personal integrity, social concern, and the desire to pursue a liberal arts education as defined in the aims and objectives of the College.'

This is the show-pony of the PBS series of how people can mix ‘God’ and evolution. But one must wonder how they define a ‘vital Christian experience’ since they evidently don’t believe the Bible, the only source of information about Christ. One part of this episode shows a field trip that proclaims that a water hole is 33 million years old.

There was a controversy when Prof. Walter Hearn promoted evolution at Wheaton in 1961. So now they apparently insist that professors sign a statement that Adam was a historical figure.

But it was abundantly clear that this statement is a dead letter. If the Profs themselves ‘support’ this, they have no qualms about inviting people who don’t believe it.

One example is a Keith Miller, who claims to be an ‘ardent evangelical Christian’. He claimed, without evidence, that there are lots of transitional forms. When questioned, he said that God chose Adam and Eve out of other humans that existed. This just shows that the word ‘evangelical’, like ‘Christian’, has become debased currency. At one time, it meant someone who believed the Reformation (and Biblical) doctrines of the inerrancy and sufficiency of Scripture. This is not always so nowadays, and certainly doesn’t apply to Miller. Genesis 2:7 teaches that the first man was made from dust and became alive when God breathed the breath of life into him. This rules out the idea that Adam was already a living primate of some kind when God breathed on him. Eve was made from Adam’s rib (Genesis 2:21–24). Luke’s genealogy of Christ traces His lineage (through Mary) all the way back to Adam, then directly to God, not via any ape-like creatures or pond scum (Luke 3:23–38). Further, 1 Corinthians 15:45 states that Adam was the ‘first man’, and Eve was so-named because she was to become the ‘mother of all living’ (Genesis 3:20). Also, Paul’s teachings about male and female roles in 1 Corinthians 11:8–9 and 1 Timothy 2:13–14 explicitly support the historical order of creation in Genesis 2:21–23.

The sad thing about Wheaton is the admission shown on this episode that most people become more confused about their Christian faith while they attend this compromising ‘Christian’ college. They wonder whether there’s a place for God if evolution is true, and rightly so—see [The horse and the tractor: Why God and evolution don’t mix](#).

This confusion should hardly be surprising—Billy Graham’s former colleague Charles Templeton totally apostatized after attending the compromising Princeton Theological Seminary (see [Slippery slide to unbelief: A famous evangelist goes from hope to hopelessness](#)). We have other testimonies of people whose faith was shipwrecked by compromising ‘Christians’ but restored with the help of AiG’s consistently Biblical approach.

SEEDS OF APOSTASY

One star is a Nathan Baird, a physical chemistry student (as I was). He had a sort of creationist upbringing (but see below), but now from his lofty height proclaims that most Christians don’t understand evolution, and dismiss it. Now he thinks that God used the big bang and evolution, and infused a spirit supernaturally into some humans. He proclaimed: ‘God is bigger than the box I’ve put him in.’

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This slogan is hardly original with Nathan. Rank apostates like John Shelby Spong also spout such vacuous tripe. But creationists don't put God into any box; rather, they are humble enough to believe what God has revealed about Himself in the Bible, including when and how He created. It's people like Nathan who put God into a box of their own making, by presuming that God would not have intervened in his creation in a different way from the way He currently upholds it (Colossians 1:16–17, a passage referring to Christ, the God-man). They also, in effect, presume that God was unable to communicate in clear prepositional revelation about the history of the universe.

LACK OF APOLOGETICS

Nathan's upbringing is sadly typical of the lack of apologetics teaching in the churches, meaning that many Christians have no idea how to defend their faith. The most serious problem is parents without answers to their children's questions.

Nathan's father correctly believed that evolution was a frontal assault on Genesis 1, but didn't seem very well informed about the issues (or else his most telling arguments were edited out, as with *AiG*). At one point, the family was outside having lunch, and Nathan's father couldn't answer some of his facile arguments, and asked his mother to bail him out.

Nathan's mother correctly pointed out that non-compromise was a common factor in church growth. She also recounted the advice of a friend, 'Don't send Nathan to Wheaton—it could destroy his faith.' One might argue whether such a person truly had saving faith to begin with (1 John 2:19), but this shows that Wheaton has already given the impression of undermining students' faith. It's a shame that Nathan's mother didn't follow this advice before forking out a fortune to a college that doesn't teach what it claims. The money may as well be spent on a secular college, because at least their students know what to expect. It's fortunate for Wheaton and many other 'Christian' colleges that they can't be sued for false advertising.

CREATION IN PUBLIC SCHOOLS?

It's important to note that *AiG* is not a lobby group for compulsory creation in public schools. For one thing, one school of thought is that sending kids to public schools is like Moses sending the Israelite children to Canaanite schools. But mainly, we wouldn't want an atheistic teacher forced to teach creation, and deliberately distort it.

Jefferson High School (in Lafayette, Indiana, USA) featured extensively. A student petition requested the creation model in the science curriculum. One teacher admitted that the signatories included 'outstanding students' and even some teachers. Of course this shows that one can be a top student without swallowing the evolutionary story.

But they interviewed teachers who claimed it was dangerous (i.e. to listen to students and parents). One teacher, 'Claire', claimed to be a Christian, but she claimed that science can't involve God, essentially swallowing the non-overlapping magisteria promoted by the Marxist Stephen Jay Gould. As explained in the rebuttal to Episode 1, this is only possible if the Bible and the real world have nothing to do with each other, or if God and reason are mutually exclusive.

Another teacher said that science is peer-reviewed, testable and repeatable. He failed to explain how a claim such as: 'A reptile turned into a bird 150 million years ago' is testable or repeatable! As often pointed out, it's hard to come up with a definition of 'science' that includes evolution and excludes creation unless it's blatantly self-serving. Sometimes these definitions are self-contradictory, e.g. some have claimed, 'Creation is not scientific because it's not *testable*', then explained how it has allegedly been *tested* and shown to be wrong. The atheist Eugenie Scott of course spouted her usual stuff proclaiming that the study of origins must be naturalistic.



The school board refused the petition, claiming that creation is not part of science. Amazingly, ‘Claire’ was shown lamenting how biology would be unteachable if evolution were censored, but that was not what the petitioners requested. But the upshot was that any criticisms of evolution are censored instead.

Not shown on the program was one chemistry teacher who was constructively dismissed for having *AiG* speaker Geoff Stevens address his class on chemical evolution, surely an appropriate topic for chemistry class. Mr Stevens presented a purely scientific case that non-living chemicals could not form a living cell by natural processes, and didn’t mention God or religion at all. But the school superintendent, Ed Eiler, issued a formal letter of reprimand to the teacher of the class, Dan Clark, falsely accusing him of introducing ‘religion’ to his classes. The real problem was that ardent evolutionists refuse to tolerate any challenges to their materialist faith.

REFERENCES

1. Paul Enns, *Moody Handbook of Theology*, p. 613, Moody Press, Chicago, 1989.
2. Kaiser, W.C. Jr., ‘The literary form of Genesis 1–11’ in Payne, J.B., *New Perspectives on the Old Testament*, pp. 59–60, Word, Inc., Waco, Texas, USA, 1970.
3. The Discovery Institute’s critique makes these good points

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